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General Catalogue

ADMISSION AND DEGREE REQUIREMENTS
ANNOUNCEMENT OF COURSES OF INSTRUCTION

Fall and Spring Semesters

1949–1950

SANTA BARBARA · CALIFORNIA

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CALENDAR, FALL SEMESTER, 1949–1950

1949

Aug. 16, Tuesday	Final date for applications and credentials for admission to the fall semester to be filed in the Registrar's Office.
Aug. 30, Tuesday	Applications for readmission to the fall semester to be filed with the Registrar by students not in attendance during the spring semester, 1949.
Sept. 12, Monday	Fall semester begins. 9:00–10:30. Required assembly of new students. Auditorium. 10:45–12:00. Meetings with department chairmen—new students. 1:00–4:00. Declaration of residence and psychological testing, all new students whose names begin with A through L. Auditorium. 1:00—Appointments made for required entrance physical examination, new men students M through Z. Student Health Center.
Sept. 13, Tuesday	9:00–12.00. Subject A test. Auditorium. 1:00–4:00. Declaration of residence and psychological testing, new students M through Z. 1:00—Appointments made for required entrance physical examination, new men students A through L. Student Health Center.
Sept. 14, Wednesday	9:00–4:00. Individual counseling—returning students. 9:00–4:00. Returning students register, pay fees. 8:00–10:00. R.O.T.C. examination—lower division male students. Auditorium. 10:00–2:00. R.O.T.C. advanced examination. Auditorium. 8:00–12:00. Appointments made for required entrance physical examination, new women students A through L. Student Health Center. 1:00–5:00. Appointments made for required entrance physical examination, new women students M through Z. Student Health Center.
Sept. 15, Thursday	9:00–4:00. Senior students *only* sign up for classes. 9:00–4:00. Individual counseling—new students. 9:00–4:00. New students register, pay fees. 3:00. Assembly of all women students. Auditorium.
Sept. 16, Friday	9:00–1:00. All students, *except seniors,* sign up for classes.
Sept. 19, Monday	Instruction begins.
Sept. 23, Friday	Last day for turning in registration books to Registrar's Office without fine.
Oct. 1, Saturday	Last day for petitioning for change of program without fee.
Oct. 21, Friday	Last day to file candidacy for teaching credential and/or the bachelor's degree for February, 1950.
Nov. 11, Friday	Close of mid-semester.
Nov. 24, Thursday	Thanksgiving Day recess. Administrative and Academic Holiday.
Dec. 19, Monday Jan. 2, Monday	Christmas recess. Academic Holiday.

1950

Jan. 3, Tuesday	Instruction resumes.
Jan. 14, Friday	Instruction ends.
Jan. 16, Monday	Final examinations begin.
Jan. 26, Thursday	Final examinations end.
Jan. 26, Thursday	Fall semester ends.

CALENDAR, SPRING SEMESTER, 1949–1950

1950

Jan. 6, Friday	Final date for applications and credentials for admission to the spring semester to be filed in the Registrar's Office.
Jan. 23, Monday	Applications for readmission to the spring semester to be filed with the Registrar by students not in attendance during the fall semester, 1949–1950.
Feb. 6, Monday	Spring semester begins. 9:00–10:30. Required assembly of new students. Auditorium. 10:45–12:00. Meetings with department chairmen—new students. 1:00–4:00. Declaration of residence and psychological testing, all new students. Auditorium.
Feb. 7, Tuesday	9:00–12:00. Subject A test. Auditorium. 1:00–5:00. Appointments made for required entrance physical examination, all new men students. Student Health Center.
Feb. 8, Wednesday	9:00–4:00. Individual counseling—returning students. 9:00–4:00. Returning students register, pay fees. 8:00–10:00. R.O.T.C. examination—lower division male students. 10:00–2:00. R.O.T.C. advanced examination. Auditorium. 8:00–12:00. Appointments made for required entrance physical examination, all new women students. Student Health Center.
Feb. 9, Thursday	9:00–4:00. Individual counseling—new students. 9:00–4:00. New students register, pay fees. 9:00–4:00. Senior students *only* sign up for classes. 3:00. Assembly of all women students. Auditorium.
Feb. 10, Friday	9:00–4:00. All students, *except seniors,* sign up for classes.
Feb. 13, Monday	Instruction begins.
Feb. 22, Wednesday	Washington's Birthday. Administrative and Academic Holiday.
Mar. 4, Saturday	Last day for petitioning for change of program without fee.
Mar. 24, Friday	Last day to file candidacy for teaching credential and/or the bachelor's degree for June or August, 1950.
April 14, Friday	Close of mid-semester.
May 30, Tuesday	Memorial Day. Administrative and Academic Holiday.
June 3, Saturday	Instruction ends.
June 5, Monday	Final examinations begin.
June 15, Thursday	Final examinations end.
June 15, Thursday	Spring semester ends.

THE REGENTS OF THE UNIVERSITY

REGENTS EX OFFICIO

His Excellency, Earl Warren, B.L., J.D.
Governor of California and President of the Regents
Sacramento 14

Goodwin J. Knight, A.B.
Lieutenant-Governor of California
State bldg, Los Angeles 12

Sam L. Collins
Speaker of the Assembly
Chapman bldg, Fullerton

Roy E. Simpson, M.A., Litt.D.
State Superintendent of Public Instruction
531 Library and Courts bldg, Sacramento 14

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1228 N Broadway, Santa Ana

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President of the Mechanics Institute
450 Mission st, San Francisco 5

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President of the Alumni Association of the University of California
619 Title Insurance bldg, Los Angeles 13

Robert Gordon Sproul, B.S., LL.D., Litt.D.
President of the University
250 Administration bldg, Berkeley 4
203 Administration bldg, Los Angeles 24

APPOINTED REGENTS

The term of the appointed Regents is sixteen years, and terms expire March 1 of the years indicated in parentheses. The names are arranged in the order of original accession to the board.

Edward Augustus Dickson, B.L. (1958)
425 S Windsor blvd, Los Angeles 5

Mortimer Fleishhacker (1950)
1080 Mills bldg, San Francisco 4

John Francis Neylan, LL.D. (1960)
Crocker First National Bank bldg, San Francisco 4

Charles Collins Teague, LL.D. (1962)
Santa Paula

Sidney M. Ehrman, B.L., LL.B. (1952)
700 Nevada Bank bldg, San Francisco 4

Amadeo Peter Giannini (1950)
Bank of America, 300 Montgomery st, San Francisco 4

Fred Moyer Jordan, A.B. (1954)
5225 Wilshire blvd, Los Angeles 36

Edwin W. Pauley, B.S. (1954)
717 N Highland av, Los Angeles 38

Brodie E. Ahlport, A.B. (1956)
458 S Spring st, Los Angeles 13

Edward H. Heller, A.B. (1958)
600 Market st, San Francisco 4

Norman F. Sprague, D.O. (1952)
1506 Lexington rd, Beverly Hills

Maurice E. Harrison, A.B., J.D., LL.D. (1960)
111 Sutter st, San Francisco 4

Victor R. Hansen, LL.B. (1962)
842 Title Insurance bldg, Los Angeles 13

Farnham P. Griffiths, B.L., A.B. (Oxon.), M.A. (Oxon.), LL.D. (1964)
Balfour bldg, San Francisco 4

Earl J. Fenston, A.B. (1964)
504 Helm bldg, Fresno 1

Chester W. Nimitz, B.S., LL.D. (1956)
429 Federal Office bldg, San Francisco 2

OFFICERS OF THE REGENTS

His Excellency, Earl Warren, B.L., J.D.
Governor of California
President
Sacramento 14

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Chairman
425 S Windsor blvd, Los Angeles 5

Robert M. Underhill, B.S.
Secretary and Treasurer
240 Administration bldg, Berkeley 4

James H. Corley, B.S.
Comptroller
250 Administration bldg, Berkeley 4

Jno. U. Calkins, Jr., B.L., J.D.
Attorney
910 Crocker bldg, San Francisco 4

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Associate Attorney for the Regents and Attorney in Residence Matters
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George D. Mallory, A.B.
Assistant Treasurer and Assistant Secretary
240 Administration bldg, Berkeley 4

George F. Taylor, B.S.
Assistant Secretary
101 Administration bldg, Los Angeles 24

Marjorie J. Woolman
Assistant Secretary
240 Administration bldg, Berkeley 4

THE UNIVERSITY OF CALIFORNIA
GENERAL ADMINISTRATIVE OFFICERS

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CLAUDE B. HUTCHISON, M.S., LL.D., D.Agr. (hon.c.), Vice-President of the University and Dean of the College of Agriculture.

CLARENCE A. DYKSTRA, A.B., L.H.D., LL.D., Litt.D., Vice-President and Provost of the University.

MONROE E. DEUTSCH, Ph.D., LL.D., Vice-President and Provost of the University, Emeritus.

ROBERT M. UNDERHILL, B.S., Secretary and Treasurer of the Regents.

JAMES H. CORLEY, B.S., Comptroller (General Business Manager).

HERMAN A. SPINDT, Ph.D., University Admissions Director.

HIRAM W. EDWARDS, Ph.D., Director of Relations with Schools.

ROBERT W. WEBB, Ph.D., University Coördinator of Veterans Affairs.

SANTA BARBARA COLLEGE
OFFICERS OF ADMINISTRATION

J. HAROLD WILLIAMS, Ph.D., Acting Provost.

JOHN C. SNIDECOR, Ph.D., Acting Dean of Applied Arts.

A. RUSSELL BUCHANAN, Ph.D., Acting Dean of Liberal Arts.

JERRY H. CLARK, Ph.D., Registrar.

HELEN E. SWEET, Ph.D., Dean of Women.

PAUL A. JONES, Ed.D., Dean of Men.

DONALD C. DAVIDSON, Ph.D., Librarian.

WILFRED T. ROBBINS, M.D., Director of Student Health Service.

J. A. DUANE MUNCY, Business Manager.

VELMA MORRELL, M.A., Housing Supervisor and Personnel Officer.

SANTA BARBARA COLLEGE

OFFICERS OF INSTRUCTION

HENRY M. ADAMS, Ph.D. . . . . Assistant Professor of History

A.B., Lehigh University, 1930; A.M., University of Southern California, 1934; Ph.D., Stanford University, 1937. At Santa Barbara College since 1947.

WILLIAM F. AGGELER, Ph.D. . . . . Assistant Professor of French

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WILLIAM D. ALTUS, Ph.D. . . . . Associate Professor of Psychology

A.B., B.S., Kansas State Teachers College of Emporia, 1930; M.A., 1932; Ph.D., New York University, 1941. At Santa Barbara College since 1941.

MARIAN H. ANDERSON, A.B. . . . . Instructor in Physical Education

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MORTIMER ANDRON, Ph.D. . . . . Assistant Professor of Economics

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KURT BAER, Ph.D. . . . . Associate Professor of Art

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HELEN M. BARNETT, M.A. . . . . Associate Professor of Music

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BEULAH B. BAYLESS, M.A. . . . . Lecturer in English

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ROBERT BEACHBOARD, Doctorat d'Université . . . . Assistant Professor of French

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HARRY K. GIRVETZ, Ph.D. ..... Associate Professor of Sociology
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EDWIN F. JONES, M.Mus.....Assistant Professor of Music
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WILLIAM F. KENNEDY, Ph.D. ..... Assistant Professor of Economics
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WILLIAM G. KNIFE, M.A. ..... Assistant Professor of Industrial Arts
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HERBERT J. KRAMER, Ph.D. ..... Instructor in English
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JOSEPH E. LANTAGNE, Ed.D. ..... Assistant Professor of Physical Education
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ROY E. LAWHORNE ..... Lecturer in Art
At Santa Barbara College since 1926.

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B.E., National College of Education, 1924; M.A., Claremont Colleges, 1930. At Santa Barbara College since 1925.

ROLF N. LINN, M.A. ..... Lecturer in German
A.B., College of Mines and Metallurgy (Texas), 1941; M.A., University of California (Los Angeles), 1942. At Santa Barbara College since 1948.

FLORENCE W. LYANS, M.A.....Assistant Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1927; M.A., University of Oregon, 1936. At Santa Barbara College since 1923.

ROBERT A. MCCOY, M.Ed.....Instructor in Industrial Arts
B.S., Bowling Green State University, 1933; M.Ed., University of Colorado, 1946. At Santa Barbara College since 1947.

RICHARD G. MCKEE, Colonel, Infantry.
Professor of Military Science and Tactics
B.S., United States Military Academy, 1918. At Santa Barbara College since 1947.

WILLARD L. MCRARY, Ph.D.....Associate Professor of Chemistry
B.S., California Institute of Technology, 1936; M.S., 1938; Ph.D., 1940. At Santa Barbara College since 1940.

RUTH MAJOR, Ph.D.....Assistant Professor of Home Economics
A.B., University of Nebraska, 1934; M.S., University of Minnesota, 1939. Ph.D., Washington State College, 1947. At Santa Barbara College since 1947.

EDMOND E. MASSON, M.A.....Lecturer in French
A.B., Stanford University, 1929; M.A., 1930. At Santa Barbara College since 1948.

IRVING A. MATHER, Ph.D.....Professor of Education
B.S., Oregon State College, 1920; M.S., University of Oregon, 1930; Ph.D., University of Oregon, 1933. At Santa Barbara College since 1937.

J. CHESLEY MATHEWS, Ph.D.....Assistant Professor of English
A.B., Furman University, 1927; M.A., Duke University, 1929; Ph.D., University of California (Berkeley), 1937. At Santa Barbara College since 1944.

EDWARD G. MATOUSEK, M.A.....Lecturer in English
A.B., University of Missouri, 1939; M.A., 1940. At Santa Barbara College since 1948.

FLORENCE C. MEREDITH, M.A.....Professor of Home Economics
A.B., Pomona College, 1913; M.A., Columbia University, 1923. At Santa Barbara since 1923.

EDNA D. MESHKE, Ph.D.....Professor of Home Economics
B.S., University of Minnesota, 1927; M.A., Columbia University, 1934; Ph.D., University of Minnesota, 1942. At Santa Barbara College since 1948.

CHARLES G. MILLER, A.B.....Lecturer in Physics
A.B., University of California (Berkeley), 1940. At Santa Barbara College since 1948.

HAROLD J. MILLER, M.S.....Assistant Professor of Industrial Arts
B.S., University of Illinois, 1931; M.S., Indiana University, 1938. At Santa Barbara College since 1946.

LYNNE C. MONROE, Ed.D.....Professor of Industrial Arts
B.S., Kansas State Teachers College (Pittsburg), 1928; M.S., Iowa State College, 1932; Ed.D., University of Missouri, 1939. At Santa Barbara College since 1939.

WILLIAM R. MORGAN, M.F.A.....Lecturer in Speech
B.F.A., University of Texas, 1942; M.F.A., University of Iowa, 1948. At Santa Barbara College since 1948.

ELIZABETH MOSLE, A.B.....Instructor in Art
A.B., Santa Barbara State College, 1941. At Santa Barbara College since 1945.

CHARLES F. MUDGETT, B.S., Lieutenant Colonel, Infantry
Associate Professor of Military Science and Tactics
B.S., University of North Dakota, 1933. At Santa Barbara College since 1947.

WILLIAM R. MUELLER, Ph.D.....Assistant Professor of English
A.B., Princeton University, 1939; M.A., Harvard University, 1941; Ph.D., 1946. At Santa Barbara College since 1948.

CORNELIUS H. MULLER, Ph.D.....Assistant Professor of Botany
A.B., University of Texas, 1932; M.A., 1933; Ph.D., University of Illinois, 1938. At Santa Barbara College since 1945.

RALPH K. NAIR, M.S.....Assistant Professor of Industrial Arts
B.S., Kansas State Teachers College (Pittsburg), 1935; M.S., 1939. At Santa Barbara College since 1941.

GWYNNE NETTLER, Ph.D.....Assistant Professor of Sociology
A.B., University of California (Los Angeles), 1934; M.A., Claremont Colleges, 1936; Ph.D., Stanford University, 1945. At Santa Barbara College since 1946.

H. EDWARD NETTLES, Ph.D.....Professor of History
B.S. in Educ., University of Missouri, 1920; M.A., 1923; Ph.D., Cornell University, 1928. At Santa Barbara College since 1930.

ELMER R. NOBLE, Ph.D.....Professor of Zoölogy
A.B., University of California (Berkeley), 1931; M.A., 1933; Ph.D., 1936. At Santa Barbara College since 1936.

JOHN M. O'GORMAN, Ph.D.....Assistant Professor of Chemistry
B.S., University of California (Berkeley), 1941; M.S., California Institute of Technology, 1942; Ph.D., 1946. At Santa Barbara College since 1946.

UPTON S. PALMER, M.A.....Lecturer in Speech
A.B., University of Redlands, 1928; M.A., State University of Iowa, 1930. At Santa Barbara College since 1947.

PAUL PÉRIGORD, Ph.D.....Professor of French Civilization
A.B., University of France, 1901; M.A., University of Chicago, 1912; Ph.D., University of Minnesota, 1924. At Santa Barbara College since 1947.

MARION E. PETERSON, M.A.....Assistant Professor of Home Economics
B.S., University of Minnesota, 1936; M.A., 1941. At Santa Barbara College since 1948.

ELSIE A. POND, M.A.....Associate Professor of Education
A.B., Stanford University, 1919; M.A., 1920. At Santa Barbara College since 1924.

PHILIP W. POWELL, Ph.D.....Associate Professor of History
A.B., University of California (Berkeley), 1936 Ph.D., 1941. At Santa Barbara College since 1948.

EVA J. PROULX, M.A.....Instructor in French
A.B., University of Paris, 1936; M.A., Columbia University, 1939. At Santa Barbara College since 1945.

EDA RAMELLI, M.A.....Professor of Spanish
A.B., University of California (Berkeley), 1913; M.A., Stanford University, 1926. At Santa Barbara College since 1923.

ANDRÉS R. RAMÓN, LL.M.....Lecturer in Spanish
A.B., Institute General y Tecnico, Almeria, Spain, 1912; LL.M., University of Granada, Spain, 1919. At Santa Barbara College since 1946.

STANLEY E. RAUCH, Ph.D.....Associate Professor of Mathematics
A.B., Reed College, 1937; M.S., University of Washington, 1939; Ph.D., Stanford University, 1941. At Santa Barbara College since 1941.

LYLE G. REYNOLDS, M.A.....Assistant Professor of Physical Education
A.B., University of California (Berkeley), 1935; M.A., Stanford University, 1947. At Santa Barbara College since 1947.

ROBERT E. ROBINSON, Ph.D.....Assistant Professor of English
A.B., University of California (Los Angeles), 1927; M.A., University of California (Berkeley), 1929; Ph.D., 1942. At Santa Barbara College since 1942.

LESTER B. SANDS, Ed.D.....Associate Professor of Education
A.B., Stanford University, 1929; M.A., 1933; Ed.D., 1939. At Santa Barbara College since 1946.

JOSEPH J. SAYOVITZ, M.S.....Instructor in Industrial Arts
B.S., Minnesota State Teachers College (St. Cloud), 1941; M.S., Iowa State College, 1947. At Santa Barbara College since 1947.

DOROTHY M. SCHNELL, M.S.....Assistant Professor of Home Economics
B.S., Kansas State Teachers College (Pittsburg), 1928; M.S., University of Minnesota, 1933. At Santa Barbara College since 1942.

ARTHUR O. SCHRICKER, M.A.....Instructor in Industrial Arts
B.S., Teachers College of Connecticut, 1945; M.A., New York University, 1947. At Santa Barbara College since 1947.

WARREN E. SCHUTT, A.B.....Lecturer in English
A.B., Oxford University, 1907; A.B., Cornell University, 1921. At Santa Barbara College since 1946.

KERMIT A. SEEFELD, M.Ed.....Assistant Professor of Industrial Arts
B.Ed., Oshkosh State Teachers College, 1932; M.Ed., Colorado State College of Agriculture and Mechanic Arts, 1946. At Santa Barbara College since 1946.

ELIZEBETH L. SEHON, M.A.....Associate Professor of Physical Education
B.S., University of Wisconsin, 1922; M.A., Ohio State University, 1931. At Santa Barbara College since 1936.

ALLEN E. SENEAR, Ph.D.....Instructor in Chemistry
A.B., Williams College, 1941; Ph.D., California Institute of Technology, 1946. At Santa Barbara College since 1947.

HAZEL W. SEVERY, M.A., D.Sci.O.....Professor of Chemistry
A.B., Stanford University, 1907; M.A., 1921; D.Sci.O., Osteopathic College of Physicians and Surgeons, 1914. At Santa Barbara College since 1914.

KENNETH M. SIMPSON, Ph.D.....Assistant Professor of Physics
B.S., Lehigh University, 1929; M.A., University of California (Berkeley), 1937; Ph.D., 1940. At Santa Barbara College since 1946.

JOHN C. SNIDECOR, Ph.D.....Professor of Speech
A.B., University of California (Berkeley), 1931; M.A., State University of Iowa, 1937; Ph.D., 1940. At Santa Barbara College since 1940.

ROY L. SOULES, M.S.....Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1926; M.S., University of Southern California, 1935. At Santa Barbara College since 1927.

FRANCES M. SPIKE, M.S.....Lecturer in Home Economics
B.S., Oregon State College, 1925; M.S., 1936. At Santa Barbara College since 1942.

JOSEPH S. STULL, Ph.D.....Instructor in English
A.B., University of Rochester, 1933; M.A., 1935; Ph.D., State University of Iowa, 1940. At Santa Barbara College since 1947.

DOUWE STUURMAN, M.A., B.Litt.....Assistant Professor of English
A.B., Calvin College, 1931; M.A., University of Oregon, 1933; B.Litt., Oxford University, 1936. At Santa Barbara College since 1941.

HELEN E. SWEET, Ph.D.....Associate Professor of Biology
A.B., Pomona College, 1928; M.A., Claremont Colleges, 1930; Ph.D., University of Chicago, 1937. At Santa Barbara College since 1933.

LOUIE S. TAYLOR, M.A.....Assistant Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1934; M.A., Claremont Colleges, 1939. At Santa Barbara College since 1934.

PETER W. TOPPING, Ph.D.....Assistant Professor of History
A.B., University of Wisconsin, 1937; M.A., 1938; Ph.D., University of Pennsylvania, 1942. At Santa Barbara College since 1948.

HENRY A. TURNER, M.A.....Lecturer in Political Science
B.S., Northwestern Missouri State Teachers College, 1939; M.A., University of Missouri, 1941. At Santa Barbara College since 1948.

DOROTHY D. VANDEMAN, M.A.....Assistant Professor of Education
A.B., Whittier College, 1931; M.A., Claremont Colleges, 1934. At Santa Barbara College since 1940.

GLADYS R. VAN FOSSEN, M.A.....Associate Professor of Physical Education
A.B., University of Minnesota, 1921; M.A., Columbia University, 1931. At Santa Barbara College since 1927.

EARL F. WALKER, M.A.....Assistant Professor of Chemistry
A.B., Nebraska Wesleyan University, 1909; Ph.G., University of Nebraska, 1912; M.A., 1915. At Santa Barbara College since 1922.

JAMES L. WALTERS, Ph.D.....Instructor in Botany
B.S., University of Chicago, 1937; Ph.D., University of California (Berkeley), 1949. At Santa Barbara College since 1947.

LEWIS F. WALTON, Ph.D.....Assistant Professor of Mathematics
B.S., Emory University, 1929; M.S., 1931; Ph.D., University of California (Berkeley), 1940. At Santa Barbara College since 1946.

ROBERT W. WEBB, Ph.D.....Associate Professor of Geology
A.B., University of California (Los Angeles), 1931; M.S., California Institute of Technology, 1932; Ph.D., 1937. At Santa Barbara College since 1948.

HARRINGTON WELLS, M.A.....Associate Professor of Science Education
A.B., Stanford University, 1923; M.A., 1924. At Santa Barbara College since 1929.

HANS WELTIN, Ph.D.....Assistant Professor of Physics
A.B., University of California (Berkeley), Ph.D., 1943. At Santa Barbara College since 1947.

SCHURER O. WERNER, M.A.....Associate Professor of Industrial Arts
A.B., State Teachers College of Santa Barbara, 1929; M.A., Claremont Colleges, 1941. At Santa Barbara College since 1927.

PATRICIA H. WHITAKER, M.A.....Instructor in Physical Education
B.S., University of California (Los Angeles), 1943; M.A., Mills College, 1944. At Santa Barbara College since 1946.

PAUL D. WIENPAHL, Ph.D.....Assistant Professor of Philosophy
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E. ALLAN WILLIAMS, Ph.D.....Associate Professor of Physics
A.B., Morningside College, 1929; M.S., University of Washington, 1931; Ph.D., 1941. At Santa Barbara College since 1941.

STANLEY L. WILLIAMSON, B.S.....Associate Professor of Physical Education
B.S., University of Southern California, 1933. At Santa Barbara College since 1941.

LAWRENCE WILLSON, Ph.D.....Assistant Professor of English
A.B., Wesleyan University, 1934; M.A., Yale University, 1942; Ph.D., 1944. At Santa Barbara College since 1947.

CLAYTON H. WILSON, M.Mus.....Assistant Professor of Music
B.Mus.Ed., Northwestern University, 1941; M.Mus., 1942. At Santa Barbara College since 1947.

MARIE WILSON, M.S.....Instructor in Home Economics
B.S., Iowa State College, 1925; M.S., Colorado State College of Agriculture and Mechanic Arts, 1940. At Santa Barbara College since 1946.

WILTON M. WILTON, M.A.....Assistant Professor of Physical Education
A.B., Santa Barbara State College, 1936; M.A., Claremont Colleges, 1947. At Santa Barbara College since 1936.

FRANCES WISHARD, B.Mus.....Instructor in Music
B.Mus., Butler University, 1934. At Santa Barbara College since 1945.

SAMUEL A. WOFSY, Ph.D.....Assistant Professor of Spanish
LL.B., Washington and Lee University, 1916; A.B., University of Wisconsin, 1922; M.A., 1923; Ph.D., 1927. At Santa Barbara College since 1946.

C. DOUGLAS WOODHOUSE, LL.M.....Lecturer in Mineralogy
A.B., Williams College, 1910; LL.B., Columbia University, 1913; LL.M., University of California (Berkeley), 1925. At Santa Barbara College since 1938.

THE UNIVERSITY OF CALIFORNIA

FOUNDED 1868

THE UNIVERSITY OF CALIFORNIA is composed of academic colleges, professional schools, divisions, departments of instruction, museums, libraries, research institutes, bureaus, and foundations, and the University of California Press, situated on eight different campuses throughout the State, namely: Berkeley, Los Angeles, San Francisco, Davis, Riverside, Mount Hamilton, La Jolla, and Santa Barbara. The University also maintains several field stations of the Agricultural Experiment Station in various parts of the State.

SANTA BARBARA COLLEGE

Santa Barbara College offers instruction in two divisions, the Division of Applied Arts and the Division of Liberal Arts. The program of each division is supervised by a dean and an advisory committee composed of faculty members. The departments belong to the college as a whole and offer courses and majors in either or both divisions. In each division instruction leads to the degree of Bachelor of Arts and combines courses in general education with study in the student's major field of interests. In each division, curricula are available leading to certain teachers' credentials, described elsewhere. Although the same academic degree is offered, the divisions differ in their aims, as follows:

THE DIVISION OF APPLIED ARTS

The Aims. The Division of Applied Arts seeks to continue and develop the program in applied arts for which Santa Barbara College is already well known. In keeping with the traditions of the University of California, broad general education is considered to be an appropriate base for specialized education. The student in the applied arts may be primarily concerned with the practical heritage of man; nevertheless he is expected to examine thoughtfully the cultural, political, economic, scientific, and artistic heritage of man in order that he may become a responsible citizen capable of expressing intellectual maturity in both his social and professional life. Throughout his college work, the student will be expected to give emphasis to both specialized and cultural education. During each succeeding college year, the student enrolled in the Division of Applied Arts is expected to pursue an increasing amount of specialized education so that as a graduating senior he will be prepared to face the practical problems of his own choosing.

In brief, the training offered in the Division of Applied Arts is designed to develop competence and leadership in teaching and other specialized professional fields with due regard to educational backgrounds leading towards intellectual maturity. Although many students in this division will enter their

chosen vocations at the end of four years, the undergraduate program in the applied arts may serve as basic preparation for graduate work.

The Curricula. Approximately one-third of the program of the student in the Division of Applied Arts will be devoted to subjects selected to provide a broad educational base for specialized training. The student will choose a major from one of the following majors offered by the Division of Applied Arts: art, divisional, education, home economics, industrial arts, music, physical and health education, speech. Various subareas of interest are available as follows: home economics (dietetics and institutional management), and industrial arts (graphic arts and applied horticulture.)

Teacher Education. The following credentials are available to students in the Division of Applied Arts: kindergarten-primary; general elementary; junior high school; special secondary credentials in art, correction of speech defects, physical education, speech arts, homemaking, industrial arts education, music; administrative credentials in elementary school administration, elementary school supervision; and special supervision credentials in subjects listed under special secondary credentials.

THE DIVISION OF LIBERAL ARTS

The Aims. The Division of Liberal Arts seeks to develop within the University of California an educational program comparable to the offerings of the best liberal arts colleges in the country. This program should attract students who wish to secure a broad general training for life in today's society. The student will be trained in the tools that should enable him to think and express himself clearly no matter what his profession may be. He will engage in study that will make him intelligently aware of his own background. He will examine his cultural and artistic heritage and will analyze the scientific, economic, political, and social forces that affect both himself and the world. As he progresses in his college work, he will be encouraged to place an emphasis upon a major field of study. This concentration will be of value to him not only as a possible means of preparing for a profession but as a method of reaching intellectual maturity through coming to grips with problems of his own choosing. Throughout the entire liberal arts program, the primary concern is the individual student. Although from time to time the student will profit from lectures by faculty members well qualified in their fields, the aim of the division is to carry on instruction in small classes in which both students and instructors participate freely.

Specifically, the training offered in the Division of Liberal Arts includes the following values to the student: a liberal training that provides tangible and intangible assets for men and women who would be leaders and intelligent participants in the world of today; an education that will guide students toward intellectual maturity; a curriculum that will establish a broad foundation upon which graduate study in specialized fields can be built; an undergraduate

program that will prepare the student for graduate study leading to such professions as law, education, and medicine.

The Curricula. Approximately one-half of the program of the student in the Division of Liberal Arts will be devoted to the completion of a core of subjects in general education in accordance with the aims indicated above. The student will also select one of the following majors offered by the Division of Liberal Arts: art, biology, botany, chemistry, economics, education, English, French, history, mathematics, music, philosophy, physical science, physics, political science, psychology, social science, sociology, Spanish, speech, and zoölogy.

Teacher Education. In conjunction with the education major, curricula are available leading to elementary and junior high school credentials. Curricula are also offered in connection with the art, music, and speech majors leading to special secondary credentials. In addition, it should be noted that most liberal arts majors serve as excellent preparation for graduate study leading to the general secondary teaching credential.

REGULAR AND SUMMER SESSIONS

The academic calendar year of Santa Barbara College is divided into two equal semesters, the fall semester beginning in September and the spring semester ending in June. In addition, there is a summer session offering courses in all the major departments. Special features of the teacher education program include an Elementary Demonstration School and a Clinical School for children.

LIBRARY FACILITIES

The College library is a selected collection of over 40,000 books and pamphlets. Over 500 current periodicals and newspapers are received. The main collection, the reference service, and offices are on the second floor of the Administration Building. The reserved book room is in temporary building "A" and a branch is maintained in the Industrial Arts Building.

The Wyles Collection of American History (1860–1945), gift of the late William Wyles of Santa Barbara, contains some 13,000 books, pamphlets, and bound periodicals. It is increased annually by gifts from the Wyles Library Board.

The Santa Barbara Public Library contains approximately 150,000 bound volumes and subscribes to over 400 periodicals and newspapers. Special collections of interest to students are art, music, reference, children's literature, and state and federal documents. Borrowing privileges are available to Santa Barbara College students.

VETERANS AFFAIRS

An Office of Veterans Affairs, in charge of a Coördinator of Veterans Affairs, has been established by the University to work out with returning service men and women the many irregularities in their educational programs resulting from war service, to maintain liaison in their behalf with the United States Veterans Administration, and to assist them in becoming assimilated in the

life and spirit of the University. This office is situated on the campus in 111 Administration Building.

In addition, the United States Veterans Administration maintains an office in charge of a Training Officer, to assist returning service men and women who are applying for federal educational benefits. This office is located at 735 State Street in downtown Santa Barbara.

Information regarding Educational Benefits available from the State of California may be obtained from the California Veterans Welfare Board, Sacramento 7, California.

Veterans must present an Original or Supplemental Certificate of Eligibility (Veterans Administration Form 7-1950 or 7-1953) and register within the registration period to obtain full veteran benefits. Veterans should apply to their local United States Veterans Administration Office in sufficient time to receive their Certificates of Eligibility prior to registration, or be prepared to pay all expenses (tuition, fees, books, and supplies).

Counseling centers are located on or in the vicinity of each campus. Services of these centers are available to all veterans without cost. The centers offer vocational counseling which may include aptitude testing and use of the center's library or occupational materials, as well as extensive interviewing. The counseling center for the Santa Barbara area is situated in Room 519, Balboa Building, 735 State Street, in downtown Santa Barbara.

COÖPERATING MUSEUMS

By special arrangements the Santa Barbara Museum of Art and the Santa Barbara Museum of Natural History, both with large private endowments and excellent reputations and facilities, and Santa Barbara College work together along the special lines represented by the museums. A number of college courses have been carried on during the past few years at the Museum of Natural History, and important programs and classes at the Museum of Art have been arranged for the College students.

UNIVERSITY EXTENSION

University Extension offers facilities to men and women who seek some form of higher education, but are prevented from taking up residence at the University. University Extension, Santa Barbara Area, in coöperation with the Community Institute, provides educational opportunities for adults living in and around Santa Barbara. Extension offerings are also available for groups or individuals located within the larger area served by the Santa Barbara office, principally San Luis Obispo, Ventura, and Santa Barbara counties. The work is carried on by means of class instruction, correspondence, institutes and lectures, singly or in series.

Persons desiring to take advantage of the facilities offered by University Extension, either in Santa Barbara or in any other part of the State, may receive detailed information on request. Address the Office of University Extension, 906 Santa Barbara Street, Santa Barbara, California.

ADMISSION TO SANTA BARBARA COLLEGE

REQUIREMENTS FOR ADMISSION

Admission to Undergraduate Status

AN APPLICANT who wishes to enter Santa Barbara College must fulfill the general requirements for admission, as set forth below. Application blanks may be obtained from the Registrar, Administration Building, University of California, Santa Barbara College, Santa Barbara, California.

Evidence of successful immunization against smallpox within the last seven years is required before an applicant may be accepted for admission.

An applicant is not accepted for admission until he has received a written statement to that effect.

No student is allowed to register after the first two weeks of regular session.

Admission to Freshman Standing

Graduates of accredited high schools may enter the University of California, Santa Barbara College, in freshman standing provided the following conditions have been satisfied.

I. Applicants who present evidence of having been accepted as regular students at the University of California, at either Berkeley or Los Angeles, may be admitted as regular students at the Santa Barbara College.

II. Graduates of four-year high schools must complete a minimum of 12 units with an average grade of B or higher from the following 16 required units (scholarship averages are computed on the basis of semester grades rather than year grades):

(*a*) English.....3 units. This requirement must be satisfied by credit designated as "English" and consists of six semesters of preparation in written and oral expression and in literature.

(*b*) History.....1 unit. This requirement may be fulfilled by any two semesters of United States history, or United States history and civics.

(*c*) Algebra.....1 unit.

(*d*) Restricted Electives.....4 units. This requirement may be satisfied by eight semesters of high school work taken in the fields of English, social science, foreign language, mathematics, and natural science, in addition to the units presented in satisfaction of (*a*), (*b*), and (*c*) above.

(*e*) Unrestricted Electives.....7 units. This requirement may be satisfied by any fourteen semesters' work taken in fields offered in the high school curriculum, exclusive of physical education.

III. Graduates of three-year high schools must complete a minimum of 9 units with an average grade of B or higher from the following 12 units as described above under the four-year program:

(*a*) English.....2 units. This requirement must be satisfied by credit designated as "English" and consists of four semesters of preparation in written and oral expression and in literature.

(*b*) History.....1 unit. This requirement may be fulfilled by any two semesters of United States history, or United States history and civics.

(*c*) Algebra.....1 unit.

(*d*) Restricted Electives.....3 units. This requirement may be satisfied by six semesters of high school work taken in the fields of English, social science, foreign language, mathematics, and natural science, in addition to the units presented in satisfaction of (*a*) and (*b*) above.

(*e*) Unrestricted Electives.....5 units. This requirement may be satisfied by any twelve semesters' work taken in fields offered in the high school curriculum, exclusive of physical education.

Responsibility of High School Authorities

The responsibility for the recommending of high school students for college lies with the high school authorities, and students naturally will be guided by their respective principals in making their preparation for entrance to the College.

Upon the high school authorities rests also the responsibility for determining the scope and content of courses preparatory to the admission of their students to the College and for certifying each course to the College under the proper subject designation of the high school program. Therefore, it is essential that high school principals and faculty advisers be familiar with the admission recommendations and requirements of Santa Barbara College in order to prepare prospective entrants to meet those requirements.

Admission to Advanced Standing

Applicants for admission to advanced standing with less than 60 accepted units must fulfill admission subject requirements on the same basis as new freshman students. High school deficiencies may be fulfilled by means of courses in University Extension, correspondence schools, accredited high schools, colleges, and junior colleges, or by examination. In work taken at Santa Barbara College, transfer students must maintain an average grade of C or better. Transferred grades will be entered on the student's record, but excess grade points from other institutions will not be added to grade points obtained at Santa Barbara College.

Applicants for admission to advanced standing must have maintained an average of at least 1.0 (C) in all work attempted in college.

Readmission After a Leave of Absence

All former students who wish to reënter Santa Barbara College must file an application for readmission with the Registrar. Official transcripts of all work attempted in the interim must be submitted. Evidence of successful immunization against smallpox may be required.

Other Methods of Admission

Admission by Examination. In exceptional cases, students are sometimes admitted by examination. Applicants for admission by examination must have the approval of the Committee on Admissions.

Applicants over twenty-one years of age, who are not high school graduates and who do not possess equivalent preparation but whose score on a standard aptitude test indicates ability to perform satisfactory college work in the chosen curriculum, may be given admission as special students, but such persons may be granted regular status *only upon removal of all deficiencies,* and upon the satisfactory completion of one full semester's college work in the chosen curriculum.

Such applicants must take a college entrance examination upon fundamental high school subjects. A student receiving an acceptable score will be granted admission in regular status in lieu of high school graduation.

Admission as Special Students. Special students are persons who are over 21* years of age and are working neither for a degree nor a credential. Their admission will be considered by the Committee on Admissions on the basis of the individual's background, qualifications, needs, and purposes. An applicant for special status may be required to take an aptitude test and the examination in Subject A. To attain regular status, special students must remove subject and scholarship deficiencies as outlined in Paragraphs I, II, and III.

Methods of Removing Entrance Deficiencies

Subject Deficiencies. Each high school subject deficiency may be removed by subject examination or by a course taken in postgraduate high school, University Extension, a correspondence school, junior or state college, or summer sessions in areas accepted by the Admissions Committee as an equivalent of the deficiency. Restricted and unrestricted electives may also be made up in the aforementioned manner.

Work taken to make up deficiencies in admission is not transferable for college graduation. Work at the college level taken beyond the deficiency courses may be accepted by the Admissions Committee.

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* This minimum age requirement may be waived for men and women having records of service with the armed forces of the United States who desire to enter the University as special students.

Scholarship Deficiencies. Where the student is deficient in scholarship or grade-point average from high school (i.e., basis of A-3, B-2, C-1, D-0 grade points), the amount of work to be required will vary according to the degree of the deficiency. The following scale, based on a B average on 12 units for the four-year high school graduate and 9 units for the three-year high school graduate, is in force:

Scholastic Deficiency by Grade-Point Average	*Requirements for Eliminating Scholastic Deficiencies by Work Acceptable from Extension, Accredited Post-graduate High School, Correspondence, or Any Approved Institution*
1.75 to 1.99	9 units college work with grade C or better; or 3 high school credits with average grade of B.
1.50 to 1.74	12 units college work with grade C or better; or 4 high school credits with average grade of B.
1.25 to 1.49	15 units college work with grade C or better; or 5 high school credits with average grade of B.
1.00 to 1.24	18 units college work with grade C or better; or 6 high school credits with average grade of B.

Work that is specified as making up scholarship deficiencies at the college level is acceptable in transfer for college graduation.

GENERAL REGULATIONS, SANTA BARBARA COLLEGE

CERTAIN general regulations govern residence and study in the academic departments.

REGISTRATION PROCEDURE

No student in the departments of Santa Barbara College may undertake any work for credit toward a degree without registering for the work with the Registrar; such registration must be accepted by the proper faculty before the work proposed is undertaken.

Each student must register *in person* in Santa Barbara College on the day appointed for that purpose, at the beginning of each semester. Registration procedure includes: the completion of admission forms; payment of fees; obtaining signatures of the Director of the Student Health Service, the Dean of Men or the Dean of Women, and the Department Chairman; enrollment in courses; and presentation of completed registration book to the Registrar.

LATE ADMISSION AND REGISTRATION

Failure to register within the prescribed time limit is certain to cause difficulty in the making of a satisfactory program and to retard the progress both of the student himself and of each class to which he may be admitted. Late registration may be permitted only under special circumstances.

A student who registers after the opening of the session and who later is found to be deficient in his work may not plead late admission as an excuse for his deficiency.

A fee of $2 is charged for late registration; this fee applies both to old and new students, nonveteran and veteran students.

No student may register for admission *after the first two weeks* of instruction.

EXAMINATIONS AT ENTRANCE

Medical and Physical Examination. All new students must appear before the College Physician and pass a medical examination to the end that the health of the College community, as well as the individual student, may be safeguarded. Every new student entering the University must include with his application for admission a certificate testifying to successful vaccination against smallpox within the last seven years. A form for this purpose is furnished by the University. Tests for tuberculosis are a part of the examination of all new students. Applicants for admission who have contagious diseases, or who are subject to serious physical disturbances, will be excluded.

Before coming to the College, every student is urged to have his own physician examine him for fitness to carry on college work, and to have all defects capable of remedial treatment, such as diseased tonsils or imperfect eyesight, corrected. This precaution will prevent possible loss of time from studies. For regulations regarding physical examinations for candidates for teacher credentials, see page 77.

Subject A: English Composition. With the exceptions noted below, every undergraduate entrant must, at the time of his first registration in the College, take an examination known as the *Examination in Subject A,* designed to test his ability to write English without gross errors in spelling, grammar, sentence structure, and punctuation.

The examination in Subject A is given at the opening of the fall semester, the spring semester, and the summer session. A second examination for late entrants is given not later than two weeks after the first examination in each semester; for this examination a fee of $1 is charged.

Papers submitted in the examination are rated as either "passed" or "failed." A student who is not present at the examination in Subject A, which he is required to take, will be treated as one who has failed. No student may have the privilege of reëxamination in Subject A.

Every student who does not pass the examination in Subject A must immediately enroll for one semester in the *Course in Subject A,* without unit credit toward graduation. Should any student fail in the course in Subject A he will be required to repeat it in the next succeeding semester of his residence in the College.

Every student who is required to take the course in Subject A is charged a fee of $20. The charge will be repeated each time he takes the course. This fee must be paid before the study list is filed.

No student will be granted the bachelor's degree until he has satisfied the Subject A requirement.

The requirement in Subject A may be met by obtaining a satisfactory rating in the College Entrance Board Examination in English 1, or by passing any Subject A examination given under the jurisdiction of the University of California.

A student who enters Santa Barbara College with credentials showing the completion elsewhere, with a grade not lower than C, of one or more college courses in English composition (with or without unit credit) is exempt from the requirement in Subject A.

College Aptitude Test. Every new student is required to take an aptitude test at entrance at the time scheduled on the Calendar. The tests are administered during the week of registration. (See pages 6 and 7.)

TRANSCRIPT OF RECORD

Each student will be provided, upon request to the Registrar, with one official transcript (copy) of his college record without charge.

A charge of $1 is made for additional transcripts ordered singly; a decreasing rate is charged for more than one transcript ordered at one time.

Students who plan to enter the teaching profession or to seek other employment following graduation should provide themselves with one or more transcripts of their records so that at all times they may be able to show official evidence of attendance at the College.

Application for a transcript of record should be made directly to the Registrar well in advance of the time when the record will be needed by the applicant.

GRADES OF SCHOLARSHIP; GRADE POINTS

Scholarship:

The result of the student's work in each course, including courses in which credit is obtained by examination, is reported to the Registrar in one of six scholarship grades, four of which are passing, as follows: A, excellent; B, good; C, average; D, barely passing; E, incomplete; and F, failure.

Incomplete Grades:

Grade E indicates an incomplete record at the end of the semester, but one which may be changed to a passing grade by passing a further examination or by performing other tasks required by the instructor. If a student's work is interrupted during the last three weeks of the semester (including final examination weeks) by circumstances beyond his control, he may be given a grade of E for the course. Grade E will be an F if not removed within six weeks after the student's return to the College, summer sessions excepted. In summer session, reëxaminations for the removal of deficiencies are not provided by the University.

Removal of Incompletes:

Any examination, term paper, or other exercise which the instructor may require of the student in order to raise grade E to a passing grade in a course is a "condition examination." For every such examination a formal permit, to be obtained in advance from the Registrar, must be shown to the instructor in charge of the examination; otherwise he will lack authority to consider and report upon the work submitted by the student. For every course in which a special examination is undertaken with a view of raising grade E to a passing grade, a fee of $2 is charged. The fee for a permit for two or more special examinations of this type is $3.

Withdrawal from College:

All withdrawals from college must be made by petition. From the first week through the sixth week of the semester a mark of W (Withdrawal) is given indicating that the units are eliminated from the student's program. From the seventh week through the end of the semester a grade of WP (Withdrawal—Passing) or WF (Withdrawal—Failure) will be reported to the Registrar by the instructors.

Withdrawal from a Course:

All withdrawals from a course must be made by petition and are subject to the rules presented in the following paragraphs. The student is responsible for making and presenting his petition for any change of program. A grade of F will be given for unauthorized withdrawals from courses.

If a student's withdrawal from a course leaves him a study load of less than 12 units, the appropriate divisional dean must approve his program for the following semester.

Upon presentation of petitions, marks for withdrawals will be assigned in conformity with the following schedule:

1. First week through the sixth week of the semester:
   W—When this mark is given, the units are eliminated from the student's program. This period is allotted for adjustment of program without penalty.
2. Seventh week to the end of the semester:
   Instructors will be asked to evaluate student progress in terms of P (Passing) or F (Failing) after petitions for withdrawal have been approved.
   WP—This mark is given when a student has earned a passing grade up to the time of withdrawal. Neither the units nor the grade points for the course will be counted on the program or on the permanent record.
   WF—This mark is given when a student has earned a grade of failure. The units will be counted on the program and permanent record as units attempted and not passed, and no grade points will be allowed.

Addition of Courses:

No student may add a new course to his program after the end of the third week of the semester.

Grade Points:

Grade points are assigned to the respective grades of scholarship as follows: for each unit of credit the scholarship grade A is assigned 3 points; B, 2 points; C, 1 point; D, E, and F, no points. In order to graduate a student must have obtained at least as many grade points as there are units in the total credit value of all courses undertaken by him at Santa Barbara College. (See *Probation and Dismissal*, page 35.)

Report of Grades:

Any student who desires to obtain his scholarship grades must, at the end of each semester, deposit with the Registrar a self-addressed, stamped envelope for the return of his report.

OTHER PROVISIONS CONCERNING SCHOLARSHIP

Mid-semester Warning:

Warning notices are sent at mid-semester to students who have received an average of D or F in any courses. A student who at the middle of any semester has received these unsatisfactory grades in two or more subjects shall be interviewed by the Dean of Men or the Dean of Women.

Failures and Repetition of Courses:

A student who fails in the first semester of a course may not continue for the second semester of that course until the failure is removed, except upon special permission of the instructor. If such a student is permitted to continue

a course the second semester and is reported as failing at mid-semester, he is thereby automatically dropped from the course, and is given a grade of F.

A student receiving any grade below C in a lower division course may, provided he receives permission from the dean of the appropriate division, repeat the course and be given the grade and grade points earned in the repetition. In computing total "units attempted" a student shall be credited only once for the units of a repeated course and his grade-point average shall be calculated in terms of the units accredited. The foregoing privilege does not apply to grade received in upper division courses. A student who receives F in upper division courses may, upon successful repetition of the course, receive unit credit for the number of units passed but ordinarily will not receive grade points.

A student who receives a grade of B, C, or D in any course is not allowed a reëxamination for the purpose of raising the grade.

Probation and Dismissal:

Work is considered satisfactory if a student maintains an average scholarship grade of C or higher. When his work falls below a C average, he will be placed on probation or be disqualified for further attendance at the College. Students who are on probation may not apply for graduation.

Probation:

A student will be placed on probation:

1. If at the close of his first semester as a freshman his record shows a total deficiency of four or more grade points; or
2. If at the close of any other semester his grade-point average is less than one (a C average), computed on the total of all courses undertaken in the College.

A student who is on probation is normally limited to a course load of 13½ units, but this limit may be exceeded with the approval of the divisional dean.

Dismissal:

A student will be subject to dismissal from the College:

1. If during any semester he fails to pass with a grade of C or higher courses totaling at least 6 units; or
2. If while on probation his grade-point average for the work undertaken during any semester falls below one (a C average); or
3. If after two consecutive semesters of probationary status he has not obtained a grade-point average of one (a C average), computed on the total of all courses undertaken in this College.

Reinstatement:

1. The following classes of dismissed students should not apply to the Committee on Reinstatement for reinstatement:
   a. Those who have been dismissed twice.
   b. Those who have been on probation a total of four or more semesters in this College.

c. Those who have a grade-point deficiency of 15 or more.

2. a. No student shall be reinstated in the lower division unless, in the opinion of the Committee on Reinstatement, he is likely to remove all his grade-point deficiencies in two semesters.
   b. No student shall be reinstated in the upper division unless, in the opinion of the Committee on Reinstatement, he is likely to remove all his grade-point deficiencies in one semester.
3. When a student is reinstated in the college he shall
   a. Be on probation.
   b. Carry a minimum program of 12 units.
   c. Make a grade-point average of at least 1.25 in the first semester after being readmitted.
   d. Be assigned to an adviser to be appointed by the Committee on Reinstatement who shall check his progress and study habits at least three or four times during the semester.
4. The Committee on Reinstatement is empowered to write contracts with reinstated students which shall accord with the above regulations.
5. The Committee on Reinstatement shall prepare a report on the success of students readmitted to the College.

LEAVE OF ABSENCE AND HONORABLE DISMISSAL

A brief leave of absence, to expire on a definite date, may be issued to a student who finds it necessary to be absent from class for reasons beyond his control. No excuse for absence will relieve the student from the necessity of completing all the work of each course to the satisfaction of the instructor in charge. Forms for leaves of absence may be obtained at the office of the Dean of Men or the Dean of Women.

Leave of absence from examinations. An excuse to be absent from any announced examination, excepting final examinations, must be obtained by written permission from the Dean of Men or Dean of Women and the instructor in charge of the examination.

If a student cannot attend a meeting of a class, he should apply for leave to the instructor in charge. If a student cannot attend a final examination, he may apply by petition through the office of the Dean of Men or Dean of Women for deferred examination.

An *honorable dismissal* or an *indefinite leave of absence* may, upon petition, be issued to any student provided he complies with the instructions on the form of petition, which may be obtained from the Registrar.

Discontinuance without notice. Students who discontinue their work during a semester without formal leave of absence do so at the risk of having their registration privileges curtained or entirely withdrawn. A petition is required in order to withdraw from the College at any time during the semester in order to obtain an honorable dismissal and not be penalized by grade-point deficiencies.

STUDENTS' PROGRAMS

Average and minimum programs. An average program is 15 units of work per semester. However, a student who is physically below normal may be required to carry a reduced program.

Twelve units of work constitute a minimum program for a regular student (except during the period of directed teaching) and is the lowest limit permitted for those engaged in student and intercollegiate activities.

Maximum programs. New freshmen students in regular status are recommended to carry a study-list load of not more than 15½ units during the first semester of their freshman year. In special circumstances, the advisers of students may allow new freshmen to carry a 17-unit load. After the first semester, regular students are allowed to carry a maximum load of 17½ units. Regular students who have made a B (2.00) average for each of the previous two semesters may carry a maximum load of 18½ units without petition.

Students who are classified as probational and special are allowed to carry a maximum load of 13½ units. The recommended study-list load for students who are physically handicapped or are part-time workers is 13½ units.

Permission to carry a program of more than the maximum allowed for the student's official classification must be obtained by petition to the Committee on Admissions. The petition, on a form supplied by the Registrar, must be signed by the chairman of the department and by either the Dean of Men or the Dean of Women and returned to the Registrar, who later reports to the student the decision of the Committee on Admissions. Approval of excess units will be granted only to students with a scholarship average of 1.5 for the previous semester. Petitions of this type *must* be filed on or before the Friday of the *third* week in the semester.

Program changes. Changes may be made in programs after registration week only by petitions that are approved by the Admissions Committee.

CHANGE OF MAJOR

The student who desires to change his major should consult the dean of the division to which his current major belongs. The dean will confer with the chairmen of the departments involved, and if it is considered desirable will approve the change. The Committee on Admissions will then reëvaluate the student's credits in the light of the new major. The student's attention should be drawn to the fact that the farther he progresses toward the completion of one major, the more academic time will be lost as a result of such a change. This procedure for a change in major applies to lower division transfers from other institutions.

No student is permitted to transfer from a major in one department to one in another after the opening of the last semester of his senior year.

CREDIT BY EXAMINATION

Credit by examination may be given under certain prescribed conditions. The rules governing such examinations may be obtained from the office of the Dean of Men or the Dean of Women. Before the examination is given, the petition for credit must be approved by the instructor who is to give the examination, the major department chairman, the appropriate divisional dean and the Courses of Instruction Committee.

FINAL EXAMINATIONS

Final examinations are required in all courses. All examinations will, so far as practicable, be conducted in writing, and a maximum time will be assigned beforehand for each examination, which no student will be allowed to exceed. The time for examination sessions will not exceed three hours.

No final examination may be given at any other than the scheduled time, except by formal approval of the Class Schedule Committee.

There can be no individual exemption from a final examination except with the approval of the Course of Instruction Committee.

Comprehensive Examinations:

Any department may examine a student, at the end of the semester immediately preceding his graduation, in the major subject in which the department has given instruction; and a student so examined may, at the discretion of the department, be excused from all final examinations in courses in the department of the major subject in which he has been enrolled during the semester. Credit value may be assigned to this general examination in the major subject.

Reëxaminations:

Reëxaminations are permitted only for the purpose of raising grade E (incomplete) to a passing grade. Grade E is not given in Summer Sessions.

DISCIPLINE

When a student enters the College it is taken for granted by the College authorities that he has an earnest purpose and that his conduct will bear out this presumption. If, however, he should be guilty of unbecoming behavior or should neglect his academic duties, the College authorities will take such action as, in their opinion, the particular offense requires. Students who fail to make proper use of the opportunities freely given to them by the College must expect to have their privileges curtailed or withdrawn.

Degrees of discipline. There are five degrees of discipline: warning, censure, suspension, dismissal, and expulsion. Censure indicates that the student is in danger of exclusion from the College. Suspension is exclusion from the College for a definite period. Dismissal is exclusion for an indefinite period, with the presumption that the student's connection with the College will be ended by it.

Expulsion is the most severe academic penalty, and is final exclusion of the student from the College.

STUDENT RESPONSIBILITY

Each student is responsible for compliance with the regulations printed in this catalogue, with official notices published in the College paper, with the notices posted on official bulletin boards, and with all regulations of the associated student body.

It is the duty of the student to inform the Dean of Women or the Dean of Men of changes of address.

No student will be permitted to enter upon the study of any subject if, in the opinion of the instructor, he lacks the necessary preparation to insure competent work in the subject.

Every student is required to attend his class exercises and to satisfy the instructor in each of his courses of study, in such ways as the instructor may determine, that he is performing the work of the courses in a systematic manner.

Students may not expect to receive grades, transcripts of records, or diplomas until all college obligations have been met. Neither may they register at the beginning of any semester until past obligations have been cleared or officially extended by the provost or one of the deans.

Failure to meet appointments with administration or faculty members, whether made through notices in mail boxes, in the College paper, or on bulletin boards, will be regarded as a breach of student responsibility, and will subject the student to a fine.

AUTHORITY OF INSTRUCTORS

Any instructor, with the approval of the President, may at any time exclude from his course any student guilty of unbecoming conduct toward the instructor or any member of the class, or any student who, in his judgment, has neglected the work of the course. A student thus excluded will be recorded as having failed in the course of study from which he is excluded, unless the faculty otherwise determines.

MISCELLANEOUS INFORMATION

Expenses—Student Body—Living Accommodations—Health Service—Employment—Placement

EXPENSES OF STUDENTS

THE QUESTION of expense while attending the College is of importance to every student. Certain expenses are common to all students. Other expenditures are optional and vary considerably according to the difference in interests. The best help the College authorities can offer the student in planning his budget is to inform him of certain definite expense items, and to acquaint him with others for which he will in all probability have to provide. It is advised that all students be able to meet the expenses of their first semester in the College without need for employment.

A table of minimum, moderate, and liberal budgets for one college semester is given on page 43. It should be noted that only a few accommodations are available at the minimal figure.

FEES

Application fee. An applicant who wishes to enter the College must fulfill the general requirements for admission. Application blanks may be obtained from the Registrar, University of California, Santa Barbara College, Santa Barbara, California. Every applicant for admission is required to pay a fee of $5 when the first application is filed.† Remittance by bank draft or money order should be made payable to The Regents of the University of California.

Incidental fee. The incidental fee for all students is $45 a semester. This fee, which must be paid at time of registration, covers expenses of students for library books, for registration and graduation, for athletic and gymnasium facilities and equipment, for lockers and washrooms, and for such consultation, medical advice, and care as can be furnished by the Student Health Service. It also includes the rights and privileges of membership in the Associated Students, valued at $10; see page 41. No part of this fee is remitted to those students who may not desire to make use of any or all of these privileges. If a student withdraws from the College within the first four weeks from the date of his registration, a part of the incidental fee will be refunded.

Tuition fee. Santa Barbara College charges a tuition fee to every student who has not been a legal resident of the State of California for a period of one year immediately preceding the opening day of the semester during which he proposes to enroll. Such a student is classified as a nonresident. A student entering Santa Barbara College for the first time should read carefully the rules governing determination of residence, as quoted below, so that he may be pre-

† Veterans who expect to enroll under the provisions of Public Law 346 or 16 are not required to remit this fee at the time of application; if the applicant is accepted and registers in the University, the fee will be paid by the government.

pared, in the event of classification as a nonresident, to pay the required tuition fee. This fee must be paid at the time of registration. *The attention of prospective students, who have not attained the age of 22 years and whose parents do not live in the State of California, is directed to the fact that presence in the State of California for a period of more than one year immediately preceding the opening day of the semester during which it is proposed to attend the College, does not, of itself, entitle the student to classification as a resident.* An alien who has not made, prior to the opening day of the semester during which he proposes to attend the College, a valid declaration of intention to become a citizen of the United States, is classified as a nonresident.

Tuition in the College is free to students who have been residents of the State of California for a period of one year immediately preceding the opening day of the semester during which they propose to attend the College.

Students who are classified as nonresidents and who enroll in 12 or more units are required to pay a tuition fee of $150 per semester. For less than 12 units, the tuition fee is prorated at $10 per unit or fraction thereof; the minimum tuition fee is $20. This fee is in addition to the incidental fee.

If the student is in doubt about his residence status, he may communicate with the Attorney for the Regents in Residence Matters. The Attorney may be consulted or communications may be addressed to him at room 910, Crocker Building, San Francisco 4, California.

The eligibility of a student to register as a resident student may be determined only by the Attorney for the Regents in Residence Matters. Every entering student, and every student returning to Santa Barbara College after an absence is required to make a "Statement as to Residence" on the day of registration upon a form which will be provided for that purpose, and his status with respect to residence will be determined by the Attorney soon after registration. Old students are advised that application for reclassification as a resident student should be filed within ten days after regular registration; by late registrants, within one week after registration. Application for a change of classification with respect to some preceding semester will not be received under any circumstances.

The Associated Students. The incidental fee, paid at the time of registration, includes membership in the Associated Students of Santa Barbara College. This organization elects regular officers and the nonappointed representatives in a student council. A membership card entitles the holder to the semiweekly newspaper *El Gaucho,* participation in extracurricular social activities, participation in Associated Women Students, Associated Men Students, and Women's Athletic Association activities, admission to and participation in athletic events, Artist Series programs including music, drama, and dance, debates, forensics, use of the College cabin, a reduced rate for the College annual, *La Cumbre.* Matters of finance are handled by a graduate manager of the Associated Students and a finance committee, subject to approval by the student council and the Provost.

MISCELLANEOUS FEES

Delinquent and Service Fees:

Duplicate registration card	$ 1.00
Failure to keep appointments with administrative officers or members of the Faculty	2.00
Failure to empty lockers within specified time	2.00
Failure to return equipment or clothing within specified time ($1.00 for each 24 hours overdue until cost of equipment is reached).	
Fees for breakage, lost items, etc., are determined by the cost of repair or replacement.	
Late changes in study list (registration book) each petition	1.00
Late filing of candidacy for degree	2.00
Late registration	2.00
Late filing of registration book	2.00
Late Subject A Examination	1.00
Library fines and replacement charges	See schedule in library
Reinstatement from lapsed status	5.00
Returned check collection	1.00
Removal of Grade E	$2.00 for first; $3.00 each for all after first

Other Fees

Field trips	Fees are arranged by the department
Health certificate for prospective teachers	5.00
Registration with Placement Office	5.00
Subject A Course	20.00

(All fees are subject to revision on approval of the Regents of the University of California. Complete information concerning fees may be obtained from the Cashier.)

REFUNDS

For students leaving before the first part of a semester has passed, part of certain fees enumerated above may be refunded. No claim for remission of fees will be considered unless such claim be presented during the fiscal year to which the claim is applicable. Receipts are issued for all payments and these receipts should be carefully preserved. No student will be entitled to a refund until he surrenders his original receipt to the Cashier's Office. A schedule of refunds and other information concerning student fees and deposits may be obtained from the Cashier's Office, University of California, Santa Barbara College.

LIVING EXPENSES

The range of the cost of the various types of housing is as follows:

Room and Board (lunches and week-end meals not included)	$270.00 to $340.00 per semester
Room only	$ 90.00 to $160.00 per semester

Room and Kitchen Privileges ..... $115.00 to $160.00 per semester
Coöperative Living Groups ..... $115.00 to $160.00 per semester
By working at 85 cents to one dollar an hour, expenses for room and board may be reduced to ..... $ 00.00 to $160.00 per semester

Other expenses. Books and stationery cost an average of from $25 to $45 a semester. Women students taking physical education are required to buy shoes and gymnasium clothes which cost from $8 to $10.

PRINCIPAL ITEMS OF STUDENT EXPENSE ESTIMATED FOR EITHER A FALL OR A SPRING SEMESTER

Expense Item	Minimum		Moderate		Liberal	
	Men	Women	Men	Women	Men	Women
Incidental fee.....	$ 45.00	$ 45.00	$ 45.00	$ 45.00	$ 45.00	$ 45.00
Books and supplies...	25.00	30.00	35.00	35.00	45.00	45.00
Room and board (lunches in college cafeteria and week-end meals included)	290.00	290.00	375.00	375.00	450.00	450.00
Miscellaneous (recreation, club dues, laundry, etc.).....	90.00	100.00	130.00	200.00	180.00	240.00
Total.....	$447.80	$462.80	$582.80	$652.80	$717.80	$777.80

NOTE.—It is impossible to include in the above figures such variable items as clothes or transportation to and from home, or fees other than the incidental fee. Students classified as nonresidents of the State must also add to their estimated budgets the tuition of $150 per semester.

LIVING ACCOMMODATIONS

The College has no dormitories for students and is dependent for housing almost entirely upon privately owned homes in the city. The majority of out-of-town students live in privately owned homes near the campus or near adequate transportation to the College. They live in boarding houses (accommodating from one to twenty students); one or two coöperative houses, in which students do their own cooking and housekeeping; in rooms in private homes, with or without kitchen privileges; in sorority or fraternity houses; in private homes where they work approximately fifteen hours a week in exchange for room and board. Advice and information about these types of accommodations may be obtained from the Office of Student Housing.

Information with reference to exchange positions for women students is obtained from the Office of the Dean of Women.

All housing must be approved by the College authorities. Registration of

each student is not complete until his housing is approved. Living arrangements are made directly with the householder after the student has been formally accepted in the College. Accommodations listed by the College can be occupied only by students enrolled in the College.

For whatever type of accommodation the student engages, he is urged to have a clear understanding in writing at the time of making his reservation regarding terms of payment, charges for the vacation periods, laundry privileges, the use of baths, social regulations, etc. In most houses, a deposit is required at the time the student engages his lodging.

As accommodations are not uniform, prospective students are advised to make their arrangements in person. It is best to write in advance of a trip to Santa Barbara in order to insure maximum assistance from the Housing Office. When an accommodation is engaged it is expected that the student will remain the entire semester. Any exceptions to this must be approved by the Dean of Women or the Dean of Men.

Applications for housing should be made with the Housing Office at the earliest possible date.

RULES GOVERNING RESIDENCE

The term nonresident student is construed to mean any person who has not been a bona fide resident of the State of California for more than one year immediately preceding the opening day of a semester during which he proposes to attend the College. (See pages 40 and 41.)

The residence of each student is determined in accordance with the rules for determining residence prescribed by the provisions of Section 244 of the Political Code of California, and Section 20005 of the Educational Code of California, provided, however:

1. That every alien student who has not made a valid declaration of intention to become a citizen of the United States, as provided by the laws thereof, prior to the opening day of the semester during which he proposes to attend the College, is deemed to be a nonresident student.

2. That no person is deemed to have made a valid declaration of intention to become a citizen of the United States whose declaration of intention at the time when it is presented in support of an application for classification as a resident student in the College has lost its force or effectiveness, or who cannot, under said declaration, without renewing the same or making a new declaration, pursue his declared intention of becoming a citizen of the United States.

Every person who has been, or shall hereafter be, classified as a nonresident student shall be considered to retain that status until such time as he shall have made application in the form prescribed by the Registrar of the College for reclassification, and shall have been reclassified as a resident student.

Every person who has been classified as a resident student shall, nevertheless, be subject to reclassification as a nonresident student and shall be reclassified as a nonresident student whenever there shall be found to exist circumstances

which, if they had existed at the time of his classification as a resident student, would have caused him to be classified as a nonresident student. If any student who has been classified as a resident student should be determined to have been erroneously so classified, he shall be reclassified as a nonresident student, and if the cause of his incorrect classification shall be found to be due to any concealment of facts or untruthful statement made by him at or before the time of his original classification, he shall be required to pay all tuition fees which would have been charged to him except for such erroneous classification, and shall be subject also to such discipline as the President of the University may approve.

SCHOLARSHIPS

The College has a number of scholarships available to entering students as well as those already in attendance. Rating candidates for scholarships is based on three qualifications—excellence in high school or college scholarship, outstanding leadership in extracurricular student activity, and exemplary personal character.

All requests for information and application blanks should be forwarded to the Secretary of the Faculty Committee on Honors and Scholarships in Room 104, Administration Building, Santa Barbara College, Santa Barbara, California, not later than April first of each year.

Selection of beneficiaries for the scholarships is made by the Committee on Honors and Scholarships after deliberate consideration of the candidate's record.

GRANTS-IN-AID

Grants-in-aid of $500 each have been donated by "The Women's Auxiliary of the Santa Barbara County Medical Society" and by Thomas D. Sears (Faith Johnson Sears Fund) for the academic years 1947–1948 and 1948–1949. They are designated as "Support for Speech Correction" and are for the study of, and work with, cerebral palsied children. These grants have been allotted to a number of students professionally interested in the field of speech correction. It is anticipated that similar funds may be available in the future.

LOANS

Various organizations and individuals have contributed toward the building up of several student loan funds. The gifts for this purpose are administered by the University in accordance with the conditions laid down by the donors and the administrative regulations of the Board of Regents. These funds are sufficient to provide small loans for short periods of time and usually without interest. Eligible students in good standing who are facing emergencies should file their applications with the expectation of waiting a short period for the processing of the loan. For further information, apply to the Dean of Men or the Dean of Women. Loans are available from the following funds:

Ednah Rich Morse Loan Fund
Santa Barbara Student Loan Fund

Albert H. Stone Education Fund
Henry Strong Educational Foundation
Senior Loan Fund
Willis Edwin Leonard Memorial Loan Fund.

STUDENT HEALTH SERVICE

The purposes of the Student Health Service is to conserve the time of students for their classwork and studies, by preventing and treating acute illnesses.

Each registered student at Santa Barbara College may, at need, have such consultations and medical care on the campus as the Infirmary is staffed and equipped to provide, from the time of payment of his registration fee to the last day of the current semester. Surgical treatment is also included in the service when, in the opinion of the Director of the Student Health Service, this service is necessary and within the limitations herein outlined. During the semester hospital care for a period up to thirty days may be given in the event of serious illness, on recommendation of the Director of Student Health Service.

If illnesses are of a nature requiring long continued care, so that the student may not be returned to classes during the current semester, or if at the end of the semester the patient is still ill, he will be released to his home or community as soon as the Director of Student Health Service considers it safe. Additional charges will be made for unusual appliances or remedies not ordinarily available or for hospitalization in excess of thirty days.

The Health Service does not take responsibility for certain chronic physical defects or illnesses at the time of entrance to the College (for example, hernias, chronic bone and joint diseases or deformities, chronic gastrointestinal disorders, fibroids of the uterus, chronically infected tonsils, tuberculosis, syphilis, malignant diseases, allergic and endocrine disorders, etc.).

A physical examination is required of all students entering the College for the first time and of all students returning after an absence of one month or longer. Also, physical examinations will be given sophomores who are candidates for teaching credentials.

STUDENT EMPLOYMENT

The College faculty expects a student to devote the major part of his time to his studies. Although many students plan to earn part or all of their expenses, it is strongly advised that students attempt no outside employment until they have made satisfactory adjustment to the demands of their academic work and of college life. Health and a scholastic standing of at least one semester should be assured before a full study program, plus employment, is attempted. Many students are able to carry an average program and from ten to twenty hours of outside work without jeopardizing scholarship, health, or participation in college activities.

If a student is largely self-supporting or not in good health he must consider

at the outset that more than the minimal number of semesters may be necessary to obtain a degree.

A student should not arrange for employment until his academic program is planned for the semester. If his program does not permit regular working hours throughout the semester, the student may take employment of shorter duration or irregular hours which may be fitted into his program. There are part-time jobs available for women and men. However, it is not always possible at the time of registration to place each student desiring employment.

Jobs of many different types are available to men students. Women students who have experience in recreational work, library work, stenography, general office work, waiting on tables, or housekeeping generally are employable. Women students may be placed in private homes to work fifteen hours a week in exchange for room and board. This work is usually care of children and light housework. It is not recommended that lowerclassmen plan to work more than twenty hours a week.

There are requests for occasional help in work such as care of children, gardening, driving, moving, clerking on Saturday, serving, sewing, light housework, special typing, or tutoring. Standing lists of requests for occasional help are kept in the offices of the Dean of Men and Dean of Women.

All employment must be registered with the Dean of Men or the Dean of Women. Students should indicate their employment desires to the appropriate dean's office before seeking employment.

OFFICE OF TEACHER PLACEMENT

Santa Barbara College maintains an Office of Teacher Placement for the mutual service of its credential graduates and school officials. For this service, a fee of $5, payable to The Regents of the University of California, is charged at the time of registration with the Office of Teacher Placement. This fee covers certain incidental expenses in connection with recommendations for positions.

A folder is prepared for each student, and this folder is permanently maintained in the Office of Teacher Placement, either in the active or inactive file, depending upon the status of the student. The same interest is maintained in former students as in those who are just completing the work of the College, and the services of the Office of Teacher Placement are available to former students upon their request.

There is no guarantee that positions will be obtained for students, but every reasonable effort is made in their behalf. All candidates for positions are expected to reimburse the Office of Teacher Placement for telephone messages and telegrams found necessary by the Director of Placement in transactions in behalf of the student. Accumulative records are maintained for each registrant. Transcripts of scholastic records may be obtained from the office of the Registrar of the College. Transfer of application folders is made between the College and the University of California, Berkeley and/or Los Angeles.

THE COLLEGE BOOKSTORE

The College Bookstore is maintained on the Riviera campus and operated by the Regents of the University of California through the supervision of the business manager. This store carries textbooks, stationery, and supplies of all kinds essential in college work. Operational policies of the store assist in making it possible for students to purchase their supplies at minimum cost.

STUDENT ACTIVITIES

Student organizations. The major student organizations include the Associated Student Body, the Associated Men Students, the Associated Women Students, the College Recreation Association, and departmental and class organizations. There are eight sororities and ten fraternities; these function through the Panhellenic Council and the Interfraternity Council respectively. There are six subchapters of Phrateres, women's international social organization. Service organizations include Alpha Phi Omega, Spurs, Squires, Key and Scroll, Knights, Crown and Scepter, Blue Key, and Cal Club.

Special interest groups include the Dance Club, Le Cercle Gaulois, Five Footers, Yacht Club, Ski, Tennis, and Badminton clubs, and International Relations Club.

National honorary professional fraternities which are active on this campus are: Alpha Mu Gamma (foreign language), Alpha Phi Gamma (journalism), Beta Beta Beta (biological science), Delta Phi Delta (art), Delta Phi Upsilon (early childhood education), Epsilon Phi Tau (industrial arts), Kappa Delta Pi (education), Kappa Omicron Phi (home economics), Phi Beta (women in music), Tau Kappa Alpha (forensics), and Theta Alpha Phi (dramatics).

Student activities. Publications of the Associated Students include *El Gaucho,* semiweekly newspaper; *La Cumbre,* the yearbook; a handbook; a directory; and a campus magazine.

The Associated Students sponsor debating, radio programs, speech contests, dramatics, a dance concert, musical productions, an Artists' Series program, and a special program of dances and picnics.

Eligibility for Student Organization Officers. In order to be a candidate for office, or to maintain an office, a student must have a total scholastic average of C or higher, and must have earned at least a C average the previous semester and carry a load of no less than 10 units, unless practice teaching is a part of the program.

STUDENT MAIL NOT DELIVERED AT THE COLLEGE

No student mail will be received at the College. All students should have their mail sent to general delivery until such time as they have acquired a permanent address in Santa Barbara. Thereafter, all mail must be sent to that address.

For communication within the College, postboxes are provided in the quadrangle. It is the responsibility of the student to visit his postbox each day to get notices from faculty or administrative officers.

REQUIREMENTS FOR DEGREES AND CREDENTIALS

GENERAL REQUIREMENTS

The following regulations apply to students of both the Applied Arts and Liberal Arts divisions.

Unit and grade-point requirements. A total of 120 semester units, with at least 120 honor points, is required for graduation with a Bachelor of Arts degree. In order to graduate, the candidate's record must show as many grade points as there are units in the total credit value of all courses undertaken. A student on probation may not apply for graduation. Half of the 120 units required for the bachelor's degree will normally be completed in the lower division and half in the upper division. No fewer than 40 units of the total requirements must be selected from upper division courses.

A maximum of 64 semester units may be accepted by transfer from junior colleges.

Extension credit toward graduation. A maximum of 30 semester units in University of California Extension courses bearing numbers prefixed by X, XB, XL, or XSB may be counted toward graduation. Such courses taken while the student is regularly enrolled at Santa Barbara College must be (1) included in the student's program, (2) counted as a part of the student's course load. and (3) approved by the student's adviser.

Teachers in service are not allowed, by regulation of the State Board of Education, to take more than 10 units of work during the school year.

Residence requirement. (Effective July 1, 1948.) Every candidate for a bachelor's degree is required to have been enrolled in the College during his two final semesters of residence; the last 24 units must be done while so enrolled. It is permissible to offer a total of twelve weeks of summer sessions as equivalent to one semester, but the student must complete at least one regular semester of his senior year in residence instruction. Credit earned by special examinations taken at Santa Barbara College will not count for residence credit.

AMERICAN HISTORY AND INSTITUTIONS

A knowledge of the provisions and principles of the United States Constitution and of American history, including American institutions and ideals, is required of all candidates for the bachelor's degree. This State law requirement is called the "Requirement of American History and Institutions" and may be satisfied by any one of the following methods:

1. By completing one of the following combinations:
   a. History 17A–17B.
   b. Political Science 20 and History 17A or 17B.
   c. Political Science 20 and Political Science 157, 162, or 181.
2. By presenting credit for acceptable courses completed at another approved California collegiate institution.

3. By examination:
   a. By passing examinations without credit in American history, and in American institutions, under direction of the Department of the Social Sciences.
   b. By passing an examination in American institutions and completing one course in group *a* or group *b* above, or by passing an examination in American history and completing one course in group *c* above.
4. Any of the courses listed above, when offered in University Extension and in Summer Sessions, may be used to fulfill the requirement in American History and Institutions.

MILITARY SCIENCE

All undergraduate male students must, upon admission to the College, report immediately to the proper officers for enrollment in military science, in accordance with instructions in the CIRCULAR FOR NEW UNDERGRADUATES or the announcements which may be posted on the ROTC bulletin board. Students must list the prescribed courses in military science on their study cards with other College courses.

A petition for excuse from, or deferment of, military science, must be filed on registration day. Exception will be made where illness or physical disability occurs after that date. Further information about the requirement in military science, including statements of the grounds upon which students may be excused from this work, may be obtained from the ROTC Office. A student who petitions to be excused from military science should nevertheless present himself to the proper instructors for enrollment while action on his petition is pending.

If a student subject to this requirement lists the prescribed course on his study card, and thereafter without authority fails to appear for work in the course, his neglect will be reported to the Registrar, who, with the approval of the Provost, will notify the student that he is dismissed from the College. The Registrar will then inform the dean or other officer in charge of the student's program of his dismissal. Reinstatement will be made only upon approval of the Provost of the College with the concurrence of the Professor of Military Science and Tactics.

Students who enter any one of the academic colleges of the University with advanced standing may, upon petition, have the requirements in military science reduced in accordance with the following schedule:

	Required Military Science
Any credit of less than 12 units	4 semesters
One semester (12 units)	3 semesters
Two semesters (24 units)	2 semesters
Three semesters (36 units)	1 semester
Four semesters (48 units)	None

PHYSICAL EDUCATION REQUIREMENT

All students must complete 2 units in physical education, preferably in the lower division. For students over 24 years of age at the time of registration, this requirement is waived, although courses in recreational activities are recommended.

STUDENT TEACHING

The public schools of the city of Santa Barbara and the surrounding area afford the laboratory for student teaching. Both demonstration of modern practices and supervision of student teachers are carried out by selected teachers and principals of the local schools, and under the direction of the Department of Education of Santa Barbara College. Student teachers are placed in all grades from the kindergarten through the junior high school and in those departments of the senior high school for which the College prepares prospective teachers for the special secondary credential. For further information, see page 71 and the descriptions under the respective departments.

Requirements

Grades. In order to register for student teaching in any department, the student must have maintained a scholarship average of grade C or higher in *all courses undertaken.*

At the conclusion of any semester, should the student's average fall below grade C, he may not reregister for student teaching until the C average has been established.

No student may be graduated, with teaching credentials, without a C average in student teaching. When the scholarship average in student teaching falls below grade C, additional units beyond the 120 total units required for graduation will be imposed until the average grade in student teaching reaches the C standard. Any grade below a C in directed teaching is not considered of "passing quality."

Examinations

Proficiency test. Before commencing their student teaching in any department, students must pass a proficiency test in the statutory subjects (see page 75). This requirement must be met by all students desiring a recommendation for a teaching credential from this College (including graduates from other colleges), except teachers who hold a regular (not emergency) California credential. This test should be taken not later than the first semester of the junior year or, preferably, the first half of the sophomore year. In the case of transfers, it should be taken no later than the semester prior to registering for teaching.

Speech test. All candidates for teaching credentials in any department of this College must prove their proficiency in speech by passing Speech 11 or, if a transfer student, by passing the Speech Proficiency Test during the first semester of enrollment in the College. In special cases, Speech 46 or 136 may be substituted for Speech 11 in satisfying this requirement. This rule also applies

to transfers and graduates of other collegiate institutions. Students who complete Speech 11 with a D grade, or demonstrate lack of speech adjustment or show particular defects, either during the course work or in student teaching, may be required to take a corrective course or its equivalent. The speech test is given on Thursday afternoon from two until five and on Saturday morning from ten until twelve during the first week of each semester, and on Tuesday afternoon from two until five during the second week of each semester. Retests are not allowed. Should the student for any reason fail to comply with this requirement prior to registration for his first semester of student teaching, he must register for Speech 11 and take it concurrently that semester.

OLD REQUIREMENTS

The following regulations, which were in effect prior to September, 1949, are applicable to all students registered at Santa Barbara College prior to that date, and to students entering the College in September, 1949, or February, 1950, with 28 or more units.

LOWER DIVISION

General educational preparation. The lower division offers the first two years' study and training in practical arts and sciences and in liberal arts and sciences. This includes approximately 60 units of the collegiate program. The emphasis in all departments is upon general education rather than specialization.

Lower division work, because of its liberal and foundational character, ought, wherever possible, to be completed before the student undertakes the more specialized work of a department. This is advisable, not only to safeguard against the narrowness and provinciality of overspecialization, but also to give the student the breadth of intellectual experience necessary for effective participation in society. With these objectives in mind the faculty has set up a core curriculum, a minimum number of units in designated fields which all students must take. These requirements should be satisfied as early as possible. It would be well if some of these requirements were included in each semester's program in the lower division, where they are generally met.

Social Science (anthropology, economics, geography, history, political science, sociology)	9 units
Natural Science (biology, botany, zoölogy, chemistry, geology, physics)	9 units
English (including 3 units of speech if required by major department)	9 units
Applied Arts (art, industrial arts, home economics, music, physical education)	9 units
Psychology	3 units
Philosophy	3 units
Physical Education (activity courses)	2 units

A student whose major is in the Division of Liberal Arts will substitute the following for the requirement of 9 units of applied arts:

Music, art (at least one course must be taken in each field) ..... 8 units

Students who by September, 1949, have already acquired units toward the applied arts requirement as formerly listed, may apply such units toward the total of 8 units under the new regulations. Any remaining units must be taken in music or art.

Introduction to major fields of study. A minimum amount, approximately 16 units, of lower division courses may be allocated to the major field of study. These courses serve as an introduction to, as well as preparation for, upper division specialization.

UPPER DIVISION

The upper division of the College embraces the last two years of the four-year curricula. For admission to this division, the records of all students are re-evaluated. The nature of the evaluation is determined by the student's desired curriculum classification.

Choice of major field of study. It is in the upper division that the definite work in the major is begun. The following majors are offered by the Division of *Applied Arts:* art crafts, major leading to secondary credential in art, early childhood education, elementary education, junior high school education, home economics in a specialized field, industrial arts, graphic arts, applied horticulture, major leading to special credential in public school music, music major leading to special secondary credential, music major and major in elementary education, music major and major in junior high school education, music major and major in early childhood education, physical education, combination major in physical education and industrial arts, and speech major leading to credential.

The following majors are offered by the Division of *Liberal Arts:* fine arts, biology, botany, zoölogy, junior high education, psychology, English, Spanish, French, mathematics, liberal arts music major, chemistry, physical science, philosophy, physics, economics, history, political science, social science, sociology, and speech.

To be admitted to the upper division, the student must have completed the lower division requirements and must have satisfied such other requirements as the department of his choice has established.

The chairman of the department in which the student registers becomes the student's chief adviser. The student should consult this adviser for assistance in all program and other curricular and professional problems.

It is highly desirable that the student choose his major field of study with great care. Personal preference, individual qualifications, and future ambitions should be carefully weighed. It should be kept in mind that change of

majors after entering the upper division is likely to prove costly in both units and time.

Unit requirements in upper division. Sixty semester units must be completed in the upper division; not less than 40 units of this total requirement must be elected from upper division courses.

AREAS OF CONCENTRATION, DISTRIBUTION, AND ELECTION

Area of concentration. The area of concentration includes a departmental major, limited to 40 units (except where the total requirement for a credential to teach exceeds this number) plus 6 units in a related field, and the department's requirements in foreign languages and mathematics. The total number of units in the area of concentration ordinarily will be comewhat less than half the number of units required for graduation. The chairmen of the respective departments will administer this work.

The field of professional education for teachers has its own majors, with requirements limited to 40 units.

Areas of distribution. As indicated above, in addition to his major, the student must meet the requirements of the core curriculum of the college.

Electives. It is anticipated that in addition to meeting requirements in the areas of concentration and distribution, the student will have room for the selection of electives. There will be enough free electives for the student, at his discretion, to expand voluntarily the departmental major by not more than 9 units, to increase the number of units in the related field, to establish a minor, or to satisfy the requirements of a teaching credential if the student's major field prepares for certification.

GROUP MAJOR

Students who do not wish to follow a specialized major curriculum may elect a group major which permits a somewhat wider selection of offerings of a liberal arts type. This curriculum leads to the degree of Bachelor of Arts, and requires 120 units for graduation, approximately half in lower division and half in the upper division.

Lower division requirements. To satisfy the requirements in this division, the student must complete at least 9 units each in English of which 3 may be in speech, natural science (at least one laboratory course), social science, and applied arts; 3 units each in psychology and philosophy, and 2 units in physical education. The Requirement of American History and Institutions may be met by fulfilling conditions set forth on page 49. To complete the 60 units in the lower division, other work should be chosen according to the pupil's interests and needs and in line with prerequisites for the work to be done in the upper division.

Upper division requirements. In the upper division the student must complete at least 36 units of required work comprising not less than 9 units with

an average grade of C or better in each of four subjects or combination of subjects as follows:

Group A. Nine units each in at least three of the following subjects or combination of subjects: 1. English-Speech, 2. Foreign Language, 3. Physical Science, 4. Biological Science, 5. Mathematics (or any combination of 3, 4, and 5), 6. History-Sociology-Anthropology, 7. Economics–Political Science (or any combination of 6 and 7), 8. Psychology. All work in the upper division group major may be taken in the subjects listed in Group A or 9 units of the required 36 units may be elected from Group B.

Group B. Nine units in not more than one subject or combination of subjects: 1. Art-Music, 2. Education-Philosophy-Psychology, 3. Home Economics *or* Industrial Education, 4. Physical and Health Education.

In addition to the requirements listed above, enough elective work must be taken to complete the 120 units required for graduation.

The student electing to graduate with a group major will be advised by the appropriate divisional dean and must have the program approved by him.

MINORS

In order to complete requirements for graduation in most of the majors, a minor is not required.

Students whose major is in junior high school education must complete two minors in subjects taught in high schools to satisfy the requirement for the State credential. For those departments in which minors are required or recommended, see the departmental descriptions. Students expecting to enter a graduate school for completion of the general secondary credential or the master's degree, should plan to complete at least one minor.

Units required for a minor. Eighteen units, of which 6 must be upper division, are, in general, required to complete a minor in any department. The student should consult the chairman of his department to insure meeting any requirements for a minor in that department.

Minors available. The following minors are offered at Santa Barbara College: applied horticulture, art, art crafts, botany, chemistry, economics, education, English, French, graphic arts, health education, history, home economics, industrial education, mathematics, music (vocal, instrumental, theory, public school), physical education, physical science, physiology, political science, psychology, Spanish, sociology, speech, and zoölogy.

NEW REQUIREMENTS

Requirements for beginning students entering Santa Barbara College on or after September 1, 1949.

The entering student will decide to fulfill the requirements of either the Division of Applied Arts or the Division of Liberal Arts. His selection of division will be based upon the probable major field of interest. (See pages 23, 24, and 25 for the aims of each division and the majors offered.)

REQUIREMENTS OF THE DIVISION OF APPLIED ARTS, 1949–1950

The beginning student in the Division of Applied Arts may select a major subject if he is reasonably sure of his future interests. However, the selection of a major may be deferred for one year in the interests of general orientation to college work. Generally speaking, students in this division should, after proper guidance, select their electives from subjects that appeal to them as having potential special interest. To provide common experience in basic college courses, all entering students in the Division of Applied Arts are required to take the program listed below. During the academic year 1949–1950, certain substitutions may be made with the approval of the dean of the division. With the exception of elective courses, all subjects in the freshman year are from the core of general education required of students in the Division of Applied Arts prior to graduation. Details of this core will be available later from the office of the Division of Applied Arts. It may be anticipated that approximately one-third of the student's college work will be completed in such courses, while two-thirds of his work will be in fields of special interest. As the student progresses in his college work, an increasing proportion of his program will consist of courses in his chosen major, and related fields.

Required Course for Freshmen in the Division of Applied Arts

Fall Semester	*Units*	Spring Semester	*Units*
1. English 1A	3	1. English 1B (Prerequisite: 1A)	3
2. Social Science (choice of *a* or *b*)	3	2. Social Science (choice of *a* or *b*)	3
(*a*) History 17A or Political Science 20		(*a*) History 17B (or Political Science 20 if not already taken)	
(*b*) History 4A		(*b*) History 4B (prerequisite 4A)	
3. Biological Science 1A	4	3. Biological Science 1B	3
(Alternate courses):		(Prerequisite: Biological Science 1A) or continuation of alternate course if eligible: Physical Science 1B (3 units), Physics 19B (3 units).	
(*a*) Physical Science 1A (3 units)			
(*b*) Prospective majors in industrial arts will take Physics 19A (3 units).			
4. Controlled Electives	4	4. Controlled Electives	4
(Chosen by proposed major department.)		(Chosen by proposed major department.)	
5. Physical Education	½	5. Physical Education	½
6. Military Science and Tactics	1½	6. Military Science and Tactics	1½

DIVISIONAL MAJOR IN THE APPLIED ARTS

A limited number of students in this division may desire to combine two or more subject areas as a divisional major. This divisional major replaces the former group major. Information regarding this curriculum may be obtained from the office of the Division of Applied Arts.

REQUIREMENTS OF THE DIVISION OF LIBERAL ARTS, 1949–1950

The beginning student in the Division of Liberal Arts will not select a major until the conclusion of his freshman year. For purposes of more effective advising, he may upon entrance indicate his probable major field of interest. It is recognized, however, that many students are uncertain as to their major upon entrance into college. To prevent loss of time for such students and to provide common experience in basic college courses, all entering students in the Division of Liberal Arts are required to take the prescribed program listed below. Most of the courses in the freshman year form a part of a core of general education that will be required of all students in the division prior to graduation. Details of this core will be announced later, but it is anticipated that approximately half the student's undergraduate work will be completed in such courses. Toward the end of the student's second semester in college, he will select a specific major.

Required Course for Freshmen in the Division of Liberal Arts

Fall Semester	*Units*	Spring Semester	*Units*
1. English 1A	3	1. English 1B (Prerequisite: 1A)	3
2. Social Science (choice of *a* or *b*)	3	2. Social Science (choice of *a* or *b*)	3
(*a*) History 17A or Political Science 20		(*a*) History 17B (or Political Science 20 if not already taken)	
(*b*) History 4A		(*b*) History 4B (Prerequisite 4A)	
3. Biological Science 1A	4	3. Biological Science 1B	3
(Alternate courses):		(Prerequisite: Biological Science 1A) or continuation of alternate course if eligible:	
(*a*) Prospective Biological Science and music majors will take Physical Science 1A (3 units)		Physical Science 1B (3 units); Chemistry 1B (5 units; Physics 1B (5 units).	
(*b*) Prospective major in Physical Science will take Chemistry 1A (5 units) or Physics 1A (5 units).			
4. Foreign Language	4	4. Foreign Language	4
(The student who has had 2 years of foreign language in high school may, upon authorization of his adviser, defer remainder of language requirement and take course preparatory to his prospective major).		(The student who has had 2 years of foreign language in high school may, upon authorization of his adviser, defer remainder of language requirement and take course preparatory to his prospective major).	
5. Physical Education	½	5. Physical Education	½
6. Military Science and Tactics	1½	6. Military Science and Tactics	1½

COURSES OF INSTRUCTION OFFERED FOR THE ACADEMIC YEAR 1949–1950

EXPLANATORY NOTE

The Semester Unit. A semester unit represents one full period of classwork per week with two hours outside preparation, or if a laboratory subject, three full periods a week, taken for the entire semester. In any laboratory course, three laboratory hours have the unit value of one lecture hour. The unit value of each course is indicated by a number in parentheses immediately following the title of the course.

Roman Numeral and Letter Designations. The Roman numerals I and/or II and/or the letters Yr. are placed after the unit value of each course to show when the course is offered: I, in the fall semester; II, in the spring semester; I, II, in both semesters; and Yr., continued through the fall and spring semesters.

Year Courses; Double Numbers. A course designated by a double number (for example, History 4A–4B) is continued through two successive semesters, ordinarily from September to June. The student should use the first number in registering for the course during its first semester, and the second number during its second semester. Generally the first half of such a course is prerequisite to the second half. A final report is made by the instructor at the end of each semester. The student may discontinue the course at the end of the first semester, with final credit for the first half of the course, except as otherwise noted.

Classification and Numbering of Courses.

Courses are classified and numbered as follows:

(1) *Lower division courses* (numbered 1–99, or indicated by letters if in subject usually given in high school). A lower division course is one open to freshmen and to sophomores; such courses do not count as upper division work in any department.

(2) *Upper division courses* (numbered 100–199). An upper division course in any department is one which is open only to those students who have completed a lower division course, or courses, in that department, or is an elementary course in a subject of such difficulty as to require the maturity of upper division students.

Departments may offer special *honors courses* in reading and research, with credit to be determined by the instructors in charge according to the performance of the individual students, subject to such general restrictions as may be imposed by the department and the College.

ART

KURT BAER, Ph.D., Associate Professor of Art.
DONALD BEAR, Lecturer in Art.
CATHERINE C. CAMPBELL, M.A., Assistant Professor of Art.
*RUTH M. DOOLITTLE, M.A., Associate Professor of Art.
ELLIOT A. P. EVANS, Ph.D., Assistant Professor of Art.
RENZO G. FENCI, M.A., Lecturer in Art.
HOWARD C. FENTON, M.A., Instructor in Art.
JACOB L. HANSEN, M.A., Assistant Professor in Art.
ENID B. HELVEY, M.A., Instructor in Art.
ROY E. LAWHORNE, Lecturer in Art.
ELIZABETH MOSLE, A.B., Instructor in Art.

The degree of Bachelor of Arts is offered in this department with a major in art in either the Liberal or Applied Arts Division.

The Department of Art reserves the right to retain the student's work for a period of one year for exhibition purposes.

MAJOR, LIBERAL ARTS

Requirements for the Major in Art, Liberal Arts Division: Satisfactory completion of a minimum of 40, maximum 49, art units in a field of emphasis which may be painting, sculpture, design, or art history.

Lower division requirements for the major in art, all fields of emphasis, Liberal Arts Division, 18 units.

Art 1. Design and Color	2
Art 10A–10B. Freehand Drawing and Composition	2–2
Art 11. Water-Color Painting	2
Art 13. Sculpture	2
Art 15. Life Drawing	2
Art 16. The Understanding of Art	2
Art 18A–18B. History of Art	2–2
Total	18 units

Upper division requirements for the major in art, Liberal Arts Division, 22 units.

Painting Emphasis

Art 101. Advanced Design and Color	2
Art 107. Graphic Design	2
Art 115 A–B–C–D. Oil Painting	2–2–2–2
Art 116. Pictorial Composition	2
Art 118. Contemporary Art	2
Art 123A–123B. Ceramics	2–2
Art 195. History of Oriental Art	2
Total	22 units

* Absent on leave, 1949–1950

Sculpture Emphasis

Art 101. Advanced Design and Color	2
Art 112. Wood Sculpture	2
Art 113 A–B–C–D. Sculpture	2–2–2–2
Art 118. Contemporary Art	2
Art 119. History of Architecture	2
Art 123A–123B. Ceramics	2–2
Art 195. History of Oriental Art	2
Total	22 units

Design Emphasis

Art 101. Advanced Design and Color	2
Art 102A. Design in Materials: Basketry and Bookbinding *or* Art 102B. Design in Materials: Weaving	2
Art 104. Design in Jewelry *or* Art 105. Design in Leather	2
Art 107. Graphic Design	2
Art 112. Wood Sculpture *or* Art 113A. Sculpture	2
Art 114. Interior Design *or* Art 120. Stage and Costume Design	2
Art 115A. Oil Painting	2
Art 116. Pictorial Composition	2
Art 118. Contemporary Art	2
Art 123A–123B. Ceramics	2–2
Total	22 units

In the design emphasis program, the following courses must be completed in order to qualify for the special secondary teaching credential in art:

Art 12. Lettering	2
Art 14. Creative Design in Advertising	2
Art 102A. Design in Materials: Basketry and Bookbinding *or* Art 102B. Design in Materials: Weaving	2
Art 121A. Art in Photography	2
Total	8 units

Art History Emphasis

Art 101. Advanced Design and Color	2
Art 107. Graphic Design *or* Art 105. Design in Leather	2
Art 108. History of Costume	2
Art 114. Interior Design *or* Art 123A. Ceramics	2
Art 115A. Oil Painting	2
Art 116. Pictorial Composition	2
Art 118. Contemporary Art	2
Art 119. History of Architecture	2
Art 120. Stage and Costume Design	2
Art 121A. Art in Photography	2
Art 195. History of Oriental Art	2
Total	22 units

In the art history emphasis program, the following courses must be completed in order to qualify for the special secondary credential in art:

Art 12. Lettering	2
Art 14. Creative Design in Advertising	2
Art 102A. Design in Materials: Basketry and Bookbinding	2
Art 102B. Design in Materials: Weaving	2
Total	8 units

MAJOR, APPLIED ARTS

Requirements for the major in art, Applied Arts Division: Satisfactory completion of a minimum of 40, maximum 49, art units.

The required art courses are:

Lower Division: 20 units

Art 1. Design and Color	2
Art 10A–10B. Freehand Drawing and Composition	2–2
Art 11. Water-Color Painting	2
Art 12. Lettering	2
Art 14. Creative Design in Advertising	2
Art 15. Life Drawing	2
Art 16. The Understanding of Art	2
Art 18A–18B. History of Art	2–2
Total	20 units

Upper Division: 20 units

Art 101. Advanced Design and Color	2
Art 102A. Design in Materials: Basketry and Bookbinding	2
Art 102B. Design in Materials: Weaving	2
Art 104. Design in Jewelry	2
Art 105. Design in Leather	2
Art 107. Graphic Design	2
Art 112. Wood Sculpture	2
Art 120. Stage and Costume Design	2
Art 121A. Art in Photography	2
Art 123A. Ceramics	2
Total	20 units

In the art major, Division of Applied Arts, the following courses must be completed in order to qualify for the special secondary teaching credential in art:

Art 115A. Oil Painting	2
Art 116. Pictorial Composition	2
Art 118. Contemporary Art	2
Total	6 units

CREDENTIAL PROGRAM

Requirements for a special secondary teaching credential in art may be fulfilled in connection with the major in applied arts and the major in liberal arts,

with either the design emphasis or the art history emphasis, by the satisfactory completion of specified courses in art and in education.

The education courses required are as follows:

Education 57. Introduction to the Study of Education	3
Education 110. Educational Psychology	3
Education 147. Audio-Visual-Radio Education	2
Education 170. Secondary Education	2
Education A 190A. Teaching Procedures in Elementary School Art	3
Education A 190B. Teaching Procedures in Secondary School Art	3
Education A 192. Student Teaching in Art	6
Total	22 units

The following are also required:

Proficiency test in speech for transfer students or Speech 11.
Proficiency test in fundamentals.
Physical and health examination.

Requirements for the minor in art: satisfactory completion of the following 18 art units.

Art 1. Design and Color	2
Art 10A–10B. Freehand Drawing and Composition	2–2
Art 11. Water-Color Painting	2
Art 15. Life Drawing	2
Art 16. The Understanding of Art	2
Art electives—upper division	6
Total	18 units

Lower Division Courses

1. Design and Color. (2) I, II. The Staff
An introduction to the elements and principles of design and color common to all the visual arts. Three two-hour laboratory periods.

10A–10B. Freehand Drawing and Composition. (2–2) I, II. The Staff
10A. Principles of perspective, value, form, and composition in various media. Three two-hour laboratory periods.
10B. Prerequisite: Art 1, 10A. Continuation of 10A with special emphasis upon composition. Three two-hour laboratory periods.

11. Water-Color Painting. (2) I, II. The Staff
Prerequisite: Art 1, 10A, 10B.
The study of water-color styles and techniques in still-life and landscape composition. Two three-hour laboratory periods.

12. Lettering. (2) I, II. Mr. Lawhorne
Fundamental principles and design of lettering and layout.
Three two-hour laboratory periods.

13. **Sculpture.** (2) I, II. Mr. Fenci
Prerequisite: Art 10A, 15.
The introduction to sculptural problems through the study of the human figure; the design and construction of three-dimensional form; modeling and casting. Three two-hour laboratory periods.

14. **Creative Design in Advertising.** (2) I, II. The Staff
Prerequisite: Art 1, 10A, 12.
Poster layout and design with additional emphasis upon related creative problems. Three two-hour laboratory periods.

15. **Life Drawing.** (2) I, II. The Staff
Prerequisite: Art 10A.
Drawing in various media from the living model; study of anatomical construction. Three two-hour laboratory periods.

16. **The Understanding of Art.** (2) I, II. The Staff
The survey of the elements and principles underlying the art expression of various cultures. Lectures and slides.

18A–18B. **History of Art.** (2–2) I, II. The Staff
18A. The historic and aesthetic development of painting, sculpture, and architecture from the prehistoric times to the end of the sixteenth century. Primarily for art majors. Lectures and slides.
18B. Prerequisite: Art 18A. Continuation of 18A from the seventeenth century to the present. Lectures and slides.

Upper Division Courses

101. **Advanced Design and Color.** (2) II. The Staff
Prerequisite: Art 1, 10A, 10B, 11.
Emphasis upon contemporary design theories and expression: two- and three-dimensional problems. Three two-hour laboratory periods.

102A–102B. **Design in Materials.** (2–2) I, II. Miss Mosle
Prerequisite: Art 1.
102A. Basketry and Bookbinding. Design and experiment in basketry and bookbinding. Two three-hour laboratory periods.
102B. Weaving. Historic and creative design in weaving, using various materials and looms. Two three-hour laboratory periods.

104. **Design in Jewelry.** (2) II. Mrs. Doolittle
Prerequisite: Art 1.
Historical background, materials, and techniques in relation to modern jewelry design and execution. Two three-hour laboratory periods.

105. **Design in Leather.** (2) II. Miss Mosle
Prerequisite: Art 1.
Original designs in leather; antique and modern styles and methods of tooling, carving, and finishing. Two three-hour laboratory periods.

106. **Elementary Art Techniques.** (2) I, II. Mrs. Campbell
Techniques, laboratory practice, and observation, preparing the student for teaching at the elementary school level. Offered for non-art majors. Three two-hour laboratory periods.

107. **Graphic Design.** (2) I. Mrs. Doolittle
Prerequisite: Art 1, 10A, 10B, 101.
Original design and method in block printing, silk screen, and stencil processes. Two three-hour laboratory periods.

108. **History of Costume.** (2) II. Mrs. Campbell
Prerequisite: Art 18A–18B or 16.
A history of costume from ancient times to the present. Lectures and slides.

112. **Wood Sculpture.** (2) II. Mr. Hansen
Prerequisite: Art 1, 10A, 13, 15.
Principles of wood-carving as applied to individual composition in relief and in the round. Two three-hour laboratory periods.

113A–B–C–D. **Sculpture.** (2–2–2–2) I, II. Mr. Fenci
Prerequisite: Art 1, 10A, 13, 15.
Advanced sculptural problems; modeling, casting, wood and stone carving. Three two-hour laboratory periods.

114. **Interior Design.** (2) I. Mr. Evans
Prerequisite: Art 1, 10A, 18A–18B.
Historic styles and development in interior decoration as background for contemporary problems in interior design. Three two-hour laboratory periods.

115A–B–C–D. **Oil Painting.** (2–2–2–2) I, II. The Staff
Prerequisite: Art 1, 10A, 10B, 116.
Composition in oil painting; exploration of various approaches and techniques. Two three-hour laboratory periods.

116. **Pictorial Composition.** (2) I, II. The Staff
Prerequisite: Art 1, 10A, 10B, 116.
Theory and analysis of compositional structure and its application to pictorial problems. Three two-hour laboratory periods.

118. **Contemporary Art.** (2) I, II. Mr. Bear
Prerequisite: Art 18A–18B or 16.
Significant developments in art from the Impressionists to the present. Lectures and slides.

119. **History of Architecture.** (2) I. Mr. Evans
Prerequisite: Art 18A–18B or 16.
Development of major architectural styles from ancient times to the present. Lectures and slides.

120. **Stage and Costume Design.** (2) II. Mr. Baer
Prerequisite: Art 1, 10A.
Design of stage settings and costumes; historic and contemporary styles. Lectures and creative projects. Three two-hour laboratory periods.

121A–121B. **Art in Photography.** (2–2) I, II. Mr. Lawhorne
Prerequisite: Art 1 or equivalent.
121A. Principles and processes of photography as an art medium. Two three-hour laboratory periods.
121B. Prerequisite: Art 121A. Continuation of 121A. Two three-hour laboratory periods.

123A–B–C–D. **Ceramics.** (2–2–2–2) I, II. Mr. Hansen
Prerequisite: Art 1.
Creative design in ceramics; construction, glazing, and firing. Two three-hour laboratory periods.

195. **History of Oriental Art.** (2) I, II. Mr. Fenton
Prerequisite: 18A–18B or 16.
Historic and aesthetic development of the art expression of the Orient. Lectures and slides.

199. **Special Studies in Art.** (1–2) I, II. The Staff
Prerequisite: departmental approval.
Advanced individual problems in art.

BIOLOGICAL SCIENCES

Barbara D. Blanchard, Ph.D., Assistant Professor of Zoölogy.
John E. Cushing, Ph.D., Assistant Professor of Bacteriology.
Demorest Davenport, Ph.D., Assistant Professor of Zoölogy.
Mary M. Erickson, Ph.D., Associate Professor of Zoölogy.
Garrett J. Hardin, Ph.D., Assistant Professor of Biology.
Cornelius H. Muller, Ph.D., Assistant Professor of Botany.
Elmer R. Noble, Ph.D., Professor of Zoölogy.
Helen E. Sweet, Ph.D., Associate Professor of Biology.
James L. Walters, Ph.D., Instructor in Botany.
Harrington Wells, M.A., Associate Professor of Science Education.

Requirements for the Majors. All major students in the department are required to present for graduation, in addition to the major and general requirements, credit for 2 semesters of Biology Seminar (Biology 192) and for one year of German or French (German 1, 2, or French 1, 2). At the end of the senior year majors will be expected to pass an oral examination covering their work in the major and in related fields.

Biology

Preparation for the major.

Required courses:

	Units
Botany 1. General Botany	4
Botany 2. Survey of the Plant Kingdom	4
Chemistry 1A. General Chemistry	5
Chemistry 1B. General Chemistry	5
Zoölogy 1A. General Zoölogy	4
Zoölogy 1B. Chordate Zoölogy	4

Recommended:

Organic Chemistry ..... at least	3
Mathematics 1A. Mathematical Analysis	4
Physics 2A–2B. General Physics	4–4
Zoölogy 40A–40B. Introductory Animal Physiology	3–3

The Major. Twenty-four units of upper division courses in the biological sciences, of which at least 9 units must be taken in each of the two following groups:

Group 1:

Botany 108A. Taxonomy of Flowering Plants	3
Botany 108B. Taxonomy of Flowering Plants	3
Botany 140. Principles of Bio-Ecology	3
Botany 141. Ecology of Biotic Communities	3
Zoölogy 104. Entomology	3
Zoölogy 112. Invertebrate Zoölogy	4
Zoölogy 113. Natural History of Vertebrates	3

Group 2:

	Units
Biology 104. General Bacteriology	4
Biology 105. Microtechnique	3
Biology 107. Cytology	4
Biology 130. Genetics	3
Biology 131. Evolution	3
Biology 145. Economic Biology	3
Biology 180. Public Health	3
Botany 128. Plant Physiology	4
Zoölogy 100. Vertebrate Embryology	3
Zoölogy 106. Comparative Anatomy of Vertebrates	4
Zoölogy 111. General Parasitology	4

Botany

Preparation for the Major.

Required courses:

Botany 1. General Botany	4
Botany 2. Survey of the Plant Kingdom	4
Botany 6. Plant Anatomy	3
Botany 7. Introduction to Plant Physiology	4
Chemistry, one year, preferably Chemistry 1A–1B	5–5
Zoölogy 1A. General Zoölogy	4

The Major. Twenty-four units from the following to fit the need of the student:

Biology 104. General Bacteriology	4
Biology 105. Microtechnique	3
Biology 107. Cytology	4
Biology 130. Genetics	3
Biology 131. Evolution	3
Biology 199. Special Problems in the Biological Sciences	1–3
Botany 108A. Taxonomy of Flowering Plants	3
Botany 108B. Taxonomy of Flowering Plants	3
Botany 128. Plant Physiology	4
Botany 140. Principles of Bio-Ecology	3
Botany 141. Ecology of Biotic Communities	3

Zoölogy

Preparation for the Major.

Required courses:

Zoölogy 1A. General Zoölogy	4
Zoölogy 1B. Chordate Zoölogy	4
Botany 1. General Botany	4
Chemistry, one year, preferably 1A–1B	5–5

The Major. Twenty-four units of upper division work in zoölogy. For 6 of these units substitutions may be made from approved related courses in anthropology, botany, chemistry, and physics. The following courses from the biology list may be included in the major.

Biology 104. General Bacteriology	4
Biology 105. Microtechnique	3
Biology 107. Cytology	4

	Units
Biology 130. Genetics	3
Biology 131. Evolution	3
Biology 180. Public Health	3
Biology 199. Special Problems	1–3

Biology

Lower Division Courses

1A. **Fundamentals of Biology.** (4) I, II. The Staff
The biology of man and his place in nature. Emphasis on human physiology. The problems that confront all living things and how they are met. The cell as a unit of biology. Elements of heredity, and evidence for evolution. Lectures, three hours; laboratory three hours.
Not open for credit to those who have had Biology 10.

1B **Fundamentals of Biology.** (3) I, II. The Staff
The gene as a unifying concept of modern biology. The variety of plants and animals and their evolution. Problems of human evolution and survival, with emphasis on conservation of soil, water, and other resources.

2. **Educational Biology.** (3) I, II. Mr. Wells
A general introductory survey course designed especially for education majors, but open without prerequisite to all students. Lectures, museum studies, field and laboratory work providing basic training in life science. Lectures, two hours, laboratory, three hours.

30. **Native Plants and Animals.** (3) II. Miss Erickson
Prerequisite: one semester of biology, botany, or zoölogy.
A study of plants and animals in the field. Lecture, one hour; field trips, six hours.

Upper Division Courses

104. **General Bacteriology.** (4) I, II. Mr. Cushing
Prerequisite: inorganic chemistry.
Introduction to microbiology. Emphasis on the physiological approach to an understanding of the activities of microörganisms in biological, medical, and nutritional problems. Related immunological phenomena considered.

105. **Microtechnique.** (3) II. ———
Prerequisite: general zoölogy or botany, or consent of the instructor. Elementary chemistry is recommended.
Preparation of biological materials for microscopic study.
Lecture, one hour; laboratory, six hours.

107. **Cytology.** (4) I. Mr. Walters
Prerequisite: Botany 1 and 2, or Zoölogy 1A–1B, or consent of instructor.
Structure and functions of the cell, especially in relation to heredity and development. Lectures, two hours; laboratory, six hours.

130. **Genetics.** (3) I. Mr. Walters
Prerequisite: an elementary course in biological science, and high school algebra. The principles and the applications of the laws of heredity.

131. **Evolution.** (3) II. Mr. Hardin
Prerequisite: Biology 130.
Organic evolution, with critical discussion of possible mechanisms involved.

145. **Economic Biology.** (3) I, II. Mr. Wells
A world survey of economically important plants and animals and their products. Lectures and seminars. Open to all juniors and seniors without prerequisite.

180. **Public Health.** (3) I, II. Miss Sweet
Prerequisite: one year of biological science.
The principles of community well-being with emphasis on preventive methods in the control of disease; history, economics, and administration of health service.

192. **Biology Seminar.** (1–1) I, II. The Staff
Prerequisite: senior standing.
Required for majors in the biological sciences. A critical review of research in selected fields of biology. Oral reports by students. One discussion period.

199. **Special Problems in the Biological Sciences.** (1–3) I, II. The Staff
Hours and credit by arrangement with any member of the staff. Laboratory or field.

Botany

Lower Division Courses

1. **General Botany.** (4) I. Mr. Muller
Fundamental facts and principles of the botanical sciences.
Lectures, two hours; laboratory or field, six hours.

2. **Survey of the Plant Kingdom.** (4) II. Mr. Walters
Morphology and life cycles of the major groups of plants, with emphasis on evolutionary relationships. Lectures, two hours; laboratory or field, six hours.

6. **Plant Anatomy.** (3) II. Mr. Walters
Prerequisite: course 1 and 2.
Introduction to the anatomy of higher plants with particular reference to the development and differentiation of vegetative tissues. Lectures, one hour; laboratory, six hours.

7. **Introduction to Plant Physiology.** (4) I. ———
Prerequisite: course 1 and 2; general chemistry.
An introductory course on the physiology of higher plants, with particular reference to water relations, photosynthesis, assimilation, plant nutrition, and hormones. Lectures, two hours; laboratory, six hours.

Upper Division Courses

108a. **Taxonomy of Flowering Plants.** (3) I. Mr. Muller
Prerequisite: course 1 and 2, or consent of the instructor.
Field and herbarium studies of flowering plants; methods of collection, preservation, and identification; the characteristics, and relationships of plant families. Lectures, one hour; laboratory or field, six hours.

108B. **Taxonomy of Flowering Plants.** (3) II. Mr. Muller
Prerequisite: course 108A.
Field and herbarium studies of native flowering plants; intensive study of California flora. Lectures, one hour; laboratory or field, six hours.

128. **Plant Physiology.** (4) II. ———
Prerequisite: course 1 and 2; general and organic chemistry. Quantitative analysis recommended.
Water relations, nutrition, pigments, photosynthesis, assimilation, respiration, hormones, dormancy, and periodicity in higher plants. Lectures, two hours; laboratory, six hours.

140. **Principles of Bio-Ecology.** (3) I. Mr. Muller
Prerequisite: Botany 1 and 2, or Zoölogy 1A–1B, and one other laboratory course in botany or Zoölogy, or consent of the instructor.
The ecology of plant and animal individuals, species, and communities, with emphasis upon habitat analysis and responses. Lectures, two hours; laboratory or field, three hours.

141. **Ecology of Biotic Communities.** (3) II. Mr. Muller
Prerequisite: Botany 1 and 2, or Zoölogy 1A–1B, and one other laboratory course in botany or zoölogy, or consent of the instructor.
The philosophy of community origin, structure, and function and the geographic basis of community distribution. Lectures, two hours; laboratory or field, three hours.

Zoölogy

Lower Division Courses

1A. **General Zoölogy.** (4) I. Mr. Noble
Prerequisite: high school or college chemistry.
Principles of animal biology, with emphasis on structure, physiology, heredity, and evolution of animals. Laboratory study of the frog, and of representative invertebrate animals. Lectures, two hours; laboratory or field, six hours.

1B. **Chordate Zoölogy.** (4) II. Mr. Davenport
Prerequisite: course 1A.
Structure, function, and development of chordates, including basic principles of evolution. Lectures, two hours; laboratory or field, six hours.

25. **Human Anatomy.** (3) II. ———
The structure of the organ systems based on human material and dissection of the cat. Lectures, one hour; laboratory, six hours.

40A–40B. **Introductory Animal Physiology.** (3–3) Yr. Miss Blanchard
Prerequisite: one semester of inorganic chemistry and sophomore standing.
An introduction to vertebrate physiology, with emphasis upon man. Lectures, two hours; laboratory, three hours.

Upper Division Courses

100. **Vertebrate Embryology.** (3) I. Miss Erickson
Prerequisite: courses 1A and 1B.
The development of the individual from fertilization to the formation of complete organ systems, based on a study of amphioxus, frog, chick, and pig. Lectures, two hours; laboratory, three hours.

104. Entomology. (3) II. Mr. Davenport
Prerequisite: course 1A.
An introduction to the study of insects, their classification, structure, physiology, and ecology. Lectures, one hour; laboratory or field, six hours.

106. Comparative Anatomy of Vertebrates. (4) I. Miss Blanchard
Prerequisite: course 1A–1B.
The evolution and ramification of vertebrate structure, with emphasis upon function. Laboratory is limited to comparative morphology, but lectures stress physiology of the chief environmental adaptations. Lectures, two hours; laboratory, six hours.

111. General Parasitology. (4) II. Mr. Noble
Prerequisite: course 1A–1B.
Biological aspects of parasitism, with special reference to the animal parasites of man. Methods of biological prevention and control of parasite diseases. Lectures, two hours; laboratory, six hours.

112. Invertebrate Zoölogy. (4) I. Mr. Davenport
Prerequisite: course 1A.
An introduction to the classification, structure, habits, and ecology of invertebrate animals, with emphasis on the marine fauna of the Santa Barbara area. Lectures, two hours; laboratory or field, six hours.

113. Natural History of Vertebrates. (3) II. Miss Erickson
Prerequisite: a laboratory course in biological science.
The higher vertebrates, emphasizing life history, systematics, distribution, speciation. Field trips include identification of local species and methods of studying behavior and habitat relations. Lectures, two hours; field, three hours.

EDUCATION-PSYCHOLOGY

William D. Altus, Ph.D., Associate Professor of Psychology.
*Alma P. Beaver, Ph.D., Associate Professor of Psychology.
Loretta M. Byers, M.A., Assistant Professor of Education.
Glenn W. Durflinger, Ed.D., Associate Professor of Education.
William E. Hayes, Ed.D., Assistant Professor of Education.
Elizabeth H. Irish, Ed.D., Assistant Professor of Education.
Charles L. Jacobs, Ph.D., Professor of Education, Emeritus.
Edith M. Leonard, M.A., Professor of Education.
Irving A. Mather, Ph.D., Professor of Education.
Elsie A. Pond, M.A., Associate Professor of Education.
Lester B. Sands, Ed.D., Associate Professor of Education.
Dorothy D. VanDeman, M.A., Assistant Professor of Education.

Joseph E. Lantagne, Ed.D., Assistant Professor of Physical Education.
Robert A. McCoy, M.Ed., Instructor in Industrial Arts.
Gladys R. Van Fossen, M.A., Associate Professor of Physical Education.
Harrington Wells, M.A., Associate Professor of Science Education.
C. Douglas Woodhouse, LL.M., Lecturer in Mineralogy.

Teacher Education

Irving A. Mather, Ph.D., Coördinator of Student Teaching.
Loretta M. Byers, M.A., Adviser, Elementary Education.
Edith M. Leonard, M.A., Adviser, Early Childhood Education.
Elsie A. Pond, M.A., Adviser, Junior High Education.

Departmental Supervisors

Marian H. Anderson, A.B., Instructor in Physical Education.
Helen M. Barnett, M.A., Associate Professor of Music.
Loretta M. Byers, M.A., Assistant Professor of Education (Elementary).
Catherine C. Campbell, M.A., Assistant Professor of Art.
Van A. Christy, Ph.D., Professor of Music.
Ruth M. Doolittle, M.A., Associate Professor of Art.
Emanuel E. Ericson, M.A., Professor of Industrial Arts.
Maurice E. Faulkner, M.A., Associate Professor of Music.
Theodore W. Hatlen, M.A., Assistant Professor of Speech.
Jean L. Hodgkins, M.A., Assistant Professor of Physical Education.
Elizabeth H. Irish, Ed.D., Assistant Professor of Education (Elementary).
Edith M. Leonard, M.A., Professor of Education (Early Childhood).
Lynne C. Monroe, Ed.D., Professor of Industrial Arts.
Ralph K. Nair, M.S., Assistant Professor of Industrial Arts.

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* Absent on leave, 1949–1950.

Upton S. Palmer, M.A., Lecturer in Speech.

Elsie A. Pond, M.A., Associate Professor of Education (Junior High).

Lyle G. Reynolds, M.A., Assistant Professor of Physical Education.

Dorothy M. Schnell, M.S., Assistant Professor of Home Economics.

Roy L. Soules, M.S., Professor of Industrial Arts.

Dorothy D. VanDeman, M.A., Assistant Professor of Education (Early Childhood).

Wilton M. Wilton, M.A., Assistant Professor of Physical Education.

Marie Wilson, M.S., Instructor in Home Economics.

Education

This department offers curricula leading to:

A. Degree of Bachelor of Arts with a major in education and a credential to teach in the kindergarten and primary grades, the elementary grades, or the junior high school grades, or some combination of these.
B. Major in psychology.
C. Elementary administration credential, elementary supervision credential, and certain special subjects supervision credentials. The administration and supervision credentials are open only to teachers of two or more years of experience.
D. Minor in education for students who are not preparing for a teaching credential.
E. Minor in psychology.

BACHELOR'S DEGREE WITH TEACHING CREDENTIAL

General Course Requirements. Candidates for degrees in one of the majors in education must fulfill all the general requirements for the bachelor's degree which are set forth on page 52.

The course, Introduction to Education, is prerequisite to all other education courses and should be taken preferably in the sophomore year. If taken in the upper division by transfer students, upper division credit may be received for the course if desired. This course should be followed by the course, Educational Psychology, ordinarily taken in the junior year. The course, Measurement in Education, should follow the course, Educational Psychology. General Psychology is prerequisite to both Introduction to Education and Educational Psychology. Further information concerning required courses in education for a particular teaching certificate will be found under the major curriculum subhead.

Scholarship Requirements. A student may not register for student teaching unless he has at least an average grade of C in his college subjects. The average of all grades received in courses in education, including student teaching, must not fall below C. If at the conclusion of any semester the average grade should fall below C, the student may not register for student teaching until the C average is reëstablished. No student may be graduated or recommended for teaching who has not maintained at least a C average in student teaching.

Student Teaching. Student teaching will ordinarily be assigned in Santa Barbara and the vicinity, except where other arrangements are necessary. In the latter case, the student himself must arrange for transportation. Unit credit for teaching will be allowed only for work completed under the direction and with the approval of the Chairman of the Department of Education or his staff. Experienced teachers may be excused from a certain amount of student teaching after ability to teach has been demonstrated on the campus under the

direction of the supervisors of student teaching. However, such credit will not be considered as fulfilling unit requirements toward graduation.

Teaching and Observation Facilities. The public schools afford the laboratory for observation and student teaching. Student teachers in early childhood and elementary education are, as a rule, assigned to the local elementary schools or placed in the schools of near-by communities. The local junior high schools and the high school are available for junior high and special secondary teacher preparation.

Proficiency Test Requirements. The following tests are required of all candidates for teaching credentials, including graduates from other institutions who desire a teaching credential from this College.

A. Proficiency test in the certain statutory subjects* (reading, language, arithmetic, spelling, and penmanship).
B. Speech test, except for those students who have passed Speech 11 in this College with a grade of C or higher.
C. Music proficiency tests for students with majors in early childhood and elementary education. These tests are described under these two majors, respectively. See page 119.

For a more complete statement regarding tests, see page 51.

CREDENTIALS

Credentials for service in public schools in California are issued by the Commission of Credentials of the State Board of Education upon recommendation of institutions authorized for teacher training. There are certain acceptable standards which must be met by candidates for teaching credentials. These include such qualifications as intelligence, scholarship, aptitude for teaching, physical fitness, and personality.

The credentials are of two main types: (a) teaching and (b) administration or supervision. There are some general requirements for all credentials, and additional special requirements for each particular type of credential.

A. Teaching Credentials. Teaching credentials issued on recommendations of this College include: (a) kindergarten-primary, entitling the holder to teach kindergarten and in grades one through three; (b) elementary, entitling the holder to teach in grades one through eight; (c) junior high school, entitling the holder to teach in grades seven, eight, and nine in any elementary, junior high, or high school; (d) special secondary, entitling the holder to teach in a specified field in any and all grades in the schools. The preparation for the special secondary credentials, offered in this institution in art, homemaking, industrial arts education, music, physical education, speech arts, and correction of speech defects, is obtained through the several special departments. For further information, see descriptions under the departments.

Combination of Credentials. Any of the credentials may be earned by completing 120 units of prescribed work. Combinations leading to two or more credentials may be made, but each additional credential will require at least one semester of work beyond that required for a single credential.

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* The statutory subjects are defined in School Code Section 3.761 as follows:
"The course of study in the elementary schools of each city, county, and city and county, shall include instruction in the following prescribed branches in the several grades in which each may be required in the course of study adopted in pursuance of this Article, viz: (1) reading, (2) writing, (3) spelling, (4) language study, (5) arithmetic, (6) geography, (7) history of the United States and of California, (8) civics, including a study of the Constitution of the United States, (9) music, (10) art, (11) training for healthful living, (12) morals and manners."

B. Elementary Administration and Supervision Credentials. The College offers preparation for three types of credentials under this classification.

1. Elementary School Administration Credential
2. Elementary School Supervision Credential
3. Special Supervision Credential.

(1) *Elementary School Administration Credential.* The program for those desiring the elementary school administration credential is designed to enable the candidate to obtain this credential at the earliest date permissible under the provisions of the regulations set up by the State Department of Education. Ordinarily it will require four summer sessions, or two summer sessions of 12 units each, plus the field work. Thus, the employed teacher may complete the work without a leave of absence or giving up any of his regular teaching.

Possession of a valid general elementary credential and verification of two years of successful teaching experience in the elementary school are required for the elementary administration credential. This credential is the authorization upon which a county board of education may issue a certificate to administer and supervise *elementary* schools as superintendent, deputy superintendent, assistant superintendent, principal, vice-principal, supervisor, or curricula coordinator in the county.

The applicant must complete at least 30 semester units of work in addition to fulfilling all requirements for the general elementary credential. Courses offered in the regular college year and in the summer sessions to meet this requirement are:

Background courses: (If these have been taken prior to the A.B. degree and the general elementary credential, upper division general and/or professional electives must be substituted.)

	Units
Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3

Specific required courses:

Education 102. History of American Education	2
Education 117. Pupil Personnel and Counseling	2
Education 133. Supervision of Instruction	2
Education 139. Curriculum Construction for Elementary Schools	2
Education 140. The Principal and His School	2
Education 143. Elementary School Administration	2
Education 148. California School Law and Finance	2
Education 149. Field Work in Elementary Administration and Supervision	6

Certain of the above courses are offered in Summer Session only.

(2) *Elementary School Supervision Credential.* This credential requires, in addition to the holding of the general elementary credential, verification of two years of successful teaching experience in the elementary schools, and 24 semester units of upper division or graduate work. The elementary school supervision credential is the authorization upon which a county board of education may issue a certificate to supervise or coördinate instruction in the *elementary* schools of the county. The requirements for this credential may be completed in three summer sessions, plus the field work. Courses offered in the regular college year and in the summer sessions to meet this requirement are:

Background courses: (If these have been taken prior to the A.B. degree and the general elementary credential, upper division general and/or professional electives must be substituted.)

	Units
Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3

Specific courses:

Education 102. History of American Education	2
Education 117. Pupil Personnel and Counseling	2
Education 133. Supervision of Instruction	2
Education 139. Curriculum Construction for Elementary Schools	2
Education 143. Elementary School Administration	2
Education 149 (Adm.). Field Work in Elementary Administration and Supervision	3
Upper division general and/or professional electives	9

Certain of the above courses are offered in Summer Session only.

(3) *Special Subject Supervision Credential.* This credential requires, in addition to the holding of a special credential authorizing teaching in a special subject field, two years of successful teaching experience. It authorizes the holder to supervise instruction in the special field indicated in the credential held. Ten semester units of work are required in addition to those needed for the special credential. (See the department chairman concerned with the work of the special secondary credential held.) Certain of the above courses are offered in Summer Session only.

Physical Examinations for Candidates for Teacher Credentials

1. All new students, freshmen and transfers, must pass a physical examination given by the College Physician.
2. When all prospective teaching majors have completed a total of 45 units, another examination will be given by the College Physician.
3. All candidates who have been absent for one or more semesters must pass a physical examination before credit may be given for courses undertaken upon their return.

Minor in Education

A minor in education is offered for those who are not expecting to obtain a teaching credential. The following courses in education constitute the minor:

	Units
Education 57. Introduction to the Study of Education	3
Education 101. History of Education	2
or Education 102. History of American Education	2
Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 180. Educational Sociology	2
Elective courses in education	4

Major in Early Childhood Education

General Description. This major leads to the degree of Bachelor of Arts and to a credential which entitles its holder to teach in the kindergarten and the

first three grades. Professional courses for students with a major in early childhood education are integrated and planned to give a background in the field of early childhood, ages two to ten. Required courses in education are:

	Units
Education 57. Introduction to the Study of Education	3
Education 60. Early Childhood Education Orientation	1
Psychology 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3
Education 122A–122B. Early Childhood Education Play Activities	2–3
Education 125. Story Telling	2
Education 126. Principles of Parent Counseling	2
Education 129. Earl Childhood Education Administration	1 or 2 or 3
Education 147. Audio-Visual-Radio Education	1 or 2
Education EC 190A. Early Childhood Education Procedure (Kindergarten)	2
Education EC 190B. Early Childhood Education Procedure (Primary) with Primary Forum and Observation	4
Education MEC 190. Early Childhood Music Education	2
Education Sc 190. Natural Science in Education	3
Education EC 191. Observation and Participation	2
Education EC 192A. Student Teaching in Kindergarten	4
Education EC 192B. Student Teaching in Primary	6
Education EC 193A–193B. Teaching Problems in Early Childhood Education	½–½

Student Teaching. Students are required to spend five half-days per week in the classroom and must reserve ample time for preparation. Ten units of student teaching are required in the senior year. Students receiving a grade lower than C in directed teaching will not be recommended for teaching. See *Scholarship Requirements*, page 74.

Required Tests. Before registering for student teaching, students must pass the proficiency tests in certain statutory subjects and speech. For complete information, see pages 51 and 75. The following proficiency tests in music are also required of students with a major in early childhood education.

1. Before enrolling in any music course, all students must take a standard native-capacity test, and a test in ability to carry a tune. These are scheduled at the beginning of each semester and must be taken at the time announced.

2. Ability in piano must be demonstrated by passing a final proficiency examination in the course, Piano E.C.E., before assignment to directed teaching. The specific piano courses for majors in early childhood education prepare students to meet the requirements.

Recommendation for the Minor. A minor in music is strongly recommended and consists of the following courses in music: Music 1A, 5, 6A–6B, 30A–30B, 30C–30D, 108A–108B, 108C–108D, 113A–113B, and Education MEC 190. No credit will be given for courses designed to remove deficiencies in preparation for this minor.

Combination Credentials. If a combination of kindergarten-primary and elementary credential is desired, at least an additional semester will be required. Consult the departmental adviser about additional course requirements.

Major in Elementary Education

General Description. This major leads to the degree of Bachelor of Arts and to a credential which entitles its holder to teach in grades one to eight, inclusive. The following courses in education are required:

	Units
Education 57. Introduction to the Study of Education	3
Education 106. Philosophy of Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119. Measurement in Education	3
Education 147. Audio-Visual-Radio Education	2
Education Ar 190. Arithmetic Procedures in the Elementary School	3
Education El 190. Elementary School Procedure	5
Education ME 190. Elementary Music Education	2
Education PSc 190. Physical Science in Education	3
Education Sc 190. Natural Science in Education	3
Education El 192. Student Teaching in Elementary Schools	8
Education El 193. Teaching Problems in Elementary Education	2

Education El 190, Procedure, must be completed before engaging in student teaching. Eight units in student teaching are required in the senior year. Students carrying 4 to 6 units of student teaching in any semester may be required to reserve a half-day for that student teaching. Students receiving a grade lower than C in student teaching will not be recommended for teaching. See *Scholarship Requirements*, page 74. All students expecting to pursue directed teaching are required to confer with the departmental adviser during the two days preceding registration.

Required Tests. Before registering for student teaching, students must pass the proficiency tests in the certain statutory subjects and speech. For complete information, see pages 51 and 75. The following proficiency tests in music are also required of students with a major in elementary education.

Students in Musicianship 1A are required to take a test in ability to carry a tune and, in addition, pass a standard native-capacity test. If the test is passed satisfactorily, the student may enter the required courses in music. If the test is not passed satisfactorily, the student is required to take Music 5, and is not recommended to teach music.

Minor. Candidates are not required to complete a minor. However, minors in art, music, physical education, industrial education, and speech correction are very valuable for teachers and it is recommended that students who can do so shall fulfill the requirements for one of these minors.

Combination Credentials. If a combination of either an elementary and kindergarten-primary or an elementary and junior high credential is desired, an additional semester will be required. The student should consult his adviser concerning additional course requirements.

For a special credential in the correction of speech defects, in addition to the elementary credential, see page 162.

For a special secondary credential in music, in addition to the elementary credential, see page 118.

Major in Junior High School Education

General Description. This major leads to the degree of Bachelor of Arts and a credential which entitles the holder to teach in grades 7, 8, and 9 in any California school. The following courses in education are required:

	Units
Education 57. Introduction to the Study of Education	3
Education 101. History of Education	2
or Education 102. History of American Education	2
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
or Psychology 113. Psychology of Adolescence	3
Education 119. Measurement in Education	3
Education 147. Audio-Visual-Radio Education	2
Education J 190. Junior High School Procedure	5
Education J 192. Student Teaching in Junior High School	8
Education J 193. Teaching Problems in Junior High Education	2
	2

Elective courses chosen from the field of education after consultation with the adviser of junior high education must be used to make a total of 30 units in that field with an average grade not lower than C:

Education 106. Philosophy of Education	2
Education 117. Pupil Personnel and Counseling	2
or Education 164. Educational and Vocational Guidance	3
Education 169. Professional Adjustment of the Teacher	2
Education 170. Secondary Education	2
Education 180. Educational Sociology	2

Education J 190, Procedure, should be completed before enrolling in directed teaching. Eight units of student teaching with a grade of C or higher are required before graduation. Students receiving lower than C in courses J 190 or J 192 will not be recommended for teaching. See *Scholarship Requirements*, page 74.

Candidates may qualify for the general junior high school credential in two ways:

1. By completing a major in junior high school education and two minors in subjects taught in the secondary school; or another major and one minor in a subject taught in the secondary field.
2. By completing a major in another department in this institution and, in addition, the requirements for the general junior high school education credential as outlined above, except that the completion of only one minor in a subject taught in secondary school will be required instead of two.

Requirements for the Minors. For course requirements for the minors selected, see description under the departments in which the minors are administered.

Required Tests. Before registering for student teaching, students must pass the proficiency tests in certain statutory subjects and speech. For complete information, see pages 51 and 75.

Combination Credentials. Students with a major in junior high school education who desire an elementary credential must take, in addition to the requirements for the major in junior high school education, other prescribed work amounting to at least one extra semester. The elementary credential adviser will decide what additional courses must be taken.

For a special credential in the correction of speech defects, see page 162.

LOWER DIVISION COURSES

57. **Introduction to the Study of Education.** (3) I, II. ———
A general introduction to the various fields of educational thought and practice. Required of all candidates for any California teaching credential. Should precede all other courses in education. Lectures, readings, reports, and discussions.

60. **Early Childhood Education Orientation.** (1) I, II. Miss LEONARD
An overview of early childhood education as a field of study and a profession. Designed to meet the needs of lower division students and entering transfers intending to major in early childhood education.

UPPER DIVISION COURSES

101. **History of Education.** (2) I. Mr. SANDS
The development of educational thought and practices from primitive times viewed as a phase of social progress. Ancient and medieval conceptions will be analyzed with reference to their effect on modern education.

102. **History of American Education.** (2–3) II. Mr. SANDS
The development of significant educational ideals and movements and the institutions in which they were embodied as a basis for the analysis of present-day problems.

106. **Philosophy of Education.** (2 or 3) I, II. Mr. SANDS
Primary philosophies influencing contemporary American education and their possible outcomes. Construction of an educational philosophy best suited to developing effective citizenship in a democratic society.

107. **Statistical Techniques.** (3) I or II. Mr. ALTUS
This course is identical with Psychology 107.

110. **Educational Psychology.** (3) I, II. Mr. DURFLINGER
Prerequisite: Psychology 1A, Education 57.
Application of the principles and findings of general psychology to the educative process, with special emphasis on learning as it functions in the school environment.

111. **Child Growth and Development.** (2) I, II. Mrs. BEAVER
Prerequisite: Psychology 1A.
The mental and physical growth and development of the school child in relation to personal and social adjustment, with special emphasis on the general laws of growth, the health of the school child, and preventive hygiene. Directed observation of normal children is required.

111N. **Growth and Development of the Young Child.** (2) I, II.
Miss VANDEMAN
Prerequisite: 2 units in courses 126 or N190 completed or taken concurrently.
Discussion and summarization of the principles of physical, intellectual, social and emotional development as noted in each child. Based upon observations of individual children in the preschool group.

117. **Pupil Personnel and Counseling.** (2) Mr. Hayes
Study of the practices and procedures employed in school counseling and guidance. Techniques and practices employed in child study and parent education.

119. **Measurement in Education.** (3) I, II. Mr. Durflinger
This course should ordinarily follow the course in Educational Psychology 110. Main purposes are to acquaint the student with the available standard measurements and to enable him to construct valid objective tests in his field. Tabulation of scores, simple statistical measures, scoring examinations, various types of tests and the functions of each, and the broader purposes and techniques of evaluation.

119(P.E.). **Measurement in Physical Education.** (2) I.
Mr. Lantagne, Miss Van Fossen

122A–122B. **Early Childhood Education Play Activities.** (2–3) Yr.
Miss Leonard
Given in correlation with Industrial Arts 190A–190B, Early Childhood Education Integrated Craftwork, and Music 113A–113B, Music for Plays, Festivals, and Pageants. Elements of dramatic play as an educational factor in the early childhood years, including organized, as well as spontaneous, dramatic activities of children; laboratory experience in the production and evaluation of creative dramatizations.

125. **Story Telling.** (2) I. Miss VanDeman
Fundamental principles underlying the choice and use of children's stories in the early childhood levels, Practical experience in telling stories to a group, with evaluation of selection and techniques; building the prospective teacher's own repertoire of literature for young children.

126. **Principles of Parent Counseling.** (2) I or II. Miss VanDeman
Special emphasis is given to group and individual guidance measures and children's problem tendencies, and their interpretation to parents. Home-school contacts and parent conferences are analyzed with reference to the influence of home and school environment, equipment, routines, supervision, social adjustment and parent-child relationships throughout the years of early childhood (birth to ten).

129. **Early Childhood Education Administration.** (1, 2, or 3) I, II.
Miss Leonard
Formulation of long-term plans and construction of a curriculum for a primary group. Habits of independent study and research are encouraged through participation in a survey of some field as early childhood education or other chosen topic.

135. **Remedial Reading.** (2) I, II. Mr. Hayes
Methods and materials of instruction and diagnosis, and remedial treatment of difficulties in reading in the elementary schools.

147. **Audio-Visual-Radio Education.** (1 or 2) I, II. Mr. Sands
Elementary majors must have completed El. 190 (Elementary Procedure) before taking this course, or be enrolled in it concurrently. Various kinds of visual, audio-visual, and radio aids of value in classroom teaching in elementary and secondary schools; handling and use of these aids, discussions of theoretical foundations, and special applications of various materials to particular areas of education. One lecture and three hours of demonstration laboratory evaluation per week.

149 (Adm.). Field Work in Elementary Administration and Supervision. (3–6) I, II. ———

Prerequisite: courses 140, 143.

Designed to give the candidate practical experience in (1) federal, state, county, and city school organization, administration and supervision; school finance; housing; business administration; and legal aspects of education; (2) the organization and administration of the elementary schools; (3) supervision of instruction and curriculum in the elementary schools.

164. Education and Vocational Guidance. (2 or 3) I or II. Mr. NAIR

Aims, objectives, and practices of guidance as affecting the classroom teacher in elementary and secondary schools.

169. Professional Adjustment of the Teacher. (2) I, II. ———

Professional problems which a beginning teacher encounters in endeavoring to make adjustments to the life of the local school and community. Problems of personality, placement, salaries, school law, school records, professional ethics, community activities, and social life and attitudes.

170. Secondary Education. (2) I, II. Mr. MATHER

Analysis of present practices and problems of the American secondary school. Survey of the historical background, objectives, and functions. Application to organization, programs, curricula, methods, and personnel.

180. Educational Sociology. (2) I. Mr. HAYES

Our American culture, its social groups, processes, institutions, and changes, with emphasis upon its relations to education in general and the school in particular. Stress is laid on the influence of organized education as a factor in social evolution. A background of an introductory course in general sociology is valuable, but not required.

187. Organization and Administration of Audio-Visual-Radio Education. (2) II. Mr. SANDS

Prerequisite: Education 147.

Studies of the problems of incorporating all types of audio-visual-radio education materials and procedures into the school curriculum. Experiences in evaluating the processes of purchasing materials, discovering sources, selecting, cataloguing, distributing, financing, maintaining, and repairing equipment.

190. Teaching Procedure.

All 190 courses are courses in methods of teaching. They include a study of the procedures in use in teaching the particular area or department of credential, or at the particular level indicated in the title of the course. The courses in the general fields include observation of demonstration teaching followed by discussion. The special secondary fields offer methods of both the elementary and secondary levels. See respective department chairmen for prerequisites for 190 courses.

A 190A. Teaching Procedures in Elementary School Art. (3) II.
(For art majors only) Mrs. DOOLITTLE

A 190B. Teaching Procedures in Secondary School Art. (3) I.
(For art majors only) Mrs. DOOLITTLE

Ar 190. Arithmetic Procedure for the Elementary School. (3) I, II.
Mrs. Irish

Prerequisite: upper division standing. The passing of a qualifying test in arithmetic given at first meeting of class. Failing students will be excluded. A course concerned with the problems of teaching elementary arithmetic. Open only to students in elementary and junior high school education.

EC 190A. Early Childhood Education Procedure (Kindergarten). (2) I.
Miss Leonard

EC 190B. Early Childhood Education Procedure (Primary) with Primary Forum and Observation. (4) II. Miss Leonard

El 190. Elementary School Procedure. (5) I, II. Miss Byers

H 190. Teaching Procedures in Home Economics. (4) I, II. Mrs. Schnell

I 190A. Teaching Procedures in Industrial Arts Education. (2) I.
Mr. Ericson

I 190B. Content and Materials in Industrial Arts. (2) II. Mr. Ericson

I 190C. Curriculum Development in Industrial Arts. (2) II. Mr. Monroe

J 190. Junior High School Procedure. (5) I, II. Miss Pond

MEC 190. Early Childhood Music Education. (2) I. Miss VanDeman

ME 190. Elementary Music Education. (2) I. Mrs. Barnett
Elementary education majors must have completed El 190 (Elementary Procedure) before taking this course, or be enrolled in it concurrently.

MI 190. Method of Teaching Instrumental Music. (2) II. Mr. Faulkner

MP 190. Methods of Teaching Piano. (1) II. Miss Wishard

MS 190. Secondary Music Education. (2) II. Mrs. Barnett

MV 190. Methods of Teaching Vocal Music. (2) I. Mr. Christy

N 190. Procedures in Nursery Education. (2) II. Miss VanDeman

P 190. Teaching Procedures in Physical Education. (2) I, II.
Mr. Reynolds

PSc 190. Physical Science in Education. (3) I, II. Mr. Woodhouse

Sc 190. Natural Science for Education. (3) I, II. Mr. Wells

Sp 190. Speech Activities and Methods for Teachers. (3) I, II. Mr. Palmer

191. Observation and Participation.
Special courses involving additional observation of master teaching, conferences, discussion, and classroom participation.

EC 191. Observation and Participation. (2) I, II.
Miss Leonard, Miss VanDeman

192. Student Teaching.
All 192 courses are concerned with student teaching in the various fields and at the different levels indicated by the titles. Experience in classroom teaching carried on under supervision of classroom teachers and college supervisors. Planned to give the student opportunity to put into practice the principles of teaching and theories of education which have been presented and discussed previously in preliminary courses in education. Practical work in the classroom is supplemented by conferences with teachers and supervisors, and by written lesson plans and assigned work. Prerequisites required for all 192 courses. See respective department chairmen.

A 192A–192B. Student Teaching in Art. (2 to 6) I, II. Mrs. DOOLITTLE

EC 192A. Student Teaching in Kindergarten. (4) I, II.
Miss LEONARD, Miss VANDEMAN

EC 192B. Student Teaching in Primary. (6) I, II.
Miss LEONARD, Miss VANDEMAN

El 192. Student Teaching in Elementary Schools. (2–6) I, II. The STAFF

H 192A. Student Teaching in Foods and Nutrition. (2) I, II.
Mrs. SCHNELL, Mrs. WILSON

H 192B. Student Teaching in Homemaking. (2) I, II.
Mrs. SCHNELL, Mrs. WILSON

H 192C. Student Teaching in Textiles and Clothing. (2) I, II.
Mrs. SCHNELL, Mrs. WILSON

I 192A–192B. Student Teaching in Industrial Arts. (3–3) I, II. The STAFF

J 192. Student Teaching in Junior High School. (2–8) I, II. Miss POND

M 192. Student Teaching in Music. (1–4) I, II. The MUSIC STAFF

N 192. Student Teaching in Nursery School. (4) I, II. Miss LEONARD

P 192. Student Teaching in Physical Education. (2–6) I, II. The STAFF

Sp 192A. Student Teaching in Speech. (4) I, II. Mr. HATLEN

Sp 192B. Student Teaching in Speech Correction. (4) I, II. Mr. PALMER

193. Teaching Problems.
Individual and group problems of student teachers at the level of education indicated in the title. To be taken concurrently with course 192A–192B.

EC 193A–193B. Teaching Problems in Early Childhood Education. ($\frac{1}{2}$–$\frac{1}{2}$) Yr.
Miss LEONARD, Miss VANDEMAN

El 193. Teaching Problems in Elementary Education. (1–1) Yr.
Miss BYERS, Mrs. IRISH

J 193. Teaching Problems in Junior High Education. (1–1) Yr. Miss POND

199. Studies in Education. (1–4) The Staff
Study of special problems in various fields of education. Open only to advanced students approved by the chairman of the department.

Additional courses for the elementary administration and supervision credentials and certain special subject supervision credentials are offered in the Summer Session.

Psychology

Preparation for the Major.

Required:

	Units
Psychology 1A–1B. General Psychology	3–3
Biology 1A. Fundamentals of Biology	4
or Zoölogy 40A–40B. Introductory Animal Physiology	3–3

Recommended: French, German, chemistry, physics, and Mathematics 1A (Mathematical Analysis) 4

Course Requirements for the Major.

Psychology 1A–1B. General Psychology, 3–3, is a prerequisite for all upper division courses in psychology.

Psychology 106A. Experimental Psychology	3
Psychology 107. Statistical Techniques	3
Psychology 126. Contemporary Psychology	2

A sequence of 24 units in upper division courses. Of these, 18 units shall be chosen in psychology; 3 units in Biology 130. Genetics and the remaining 3 units may be chosen from psychology or, subject to approval of adviser, any upper division course in education, philosophy, sociology, or political science.

Minor in Psychology. A minor in psychology is offered primarily for students who are not working toward a teaching credential. However, those students in education who expect to enter a graduate school of education immediately upon completion of their undergraduate work will find it advisable to have a strong background in psychology. A college course in physiology is required for all psychology minors; preferably, the course in physiology should be taken before any psychology courses are attempted.

Course Requirements for the Minor.

Preparation for the minor:

Psychology 1A–1B. General Psychology	3–3

10 units of work to be elected from upper division courses in psychology.

Lower Division Courses

1A. General Psychology. (3) I, II. The Staff
Introduction to the subject matter, methods, and techniques of scientific psychology; emphasis upon basic principles underlying the prediction and control of human behavior. Lectures, textbook and collateral readings, classroom demonstrations, and discussions. A sophomore course, not open to freshmen.

1B. General Psychology. (3) I, II. The Staff
Prerequisite: course 1A. Required course for all psychology majors and minors.
Study of the higher types of human behavior; classic and recent experiments in the various fields of scientific psychology. Lectures, textbook and collateral readings, reports.

32. **College Work Techniques.** (2) I, II. Mr. Sands
Required for all students on probation unless excused by the chairman of the student's major department, the dean of the respective division and the Dean of Men or the Dean of Women. Recommended for all students working below their capacities.

Upper Division Courses

104. **Principles of Test Construction.** (3) II. Mr. Altus
Prerequisite: course 107.
Theories underlying the construction of objective tests, with primary emphasis upon validity and its meaning. Each student will be required to validate a test of his own devising. Primarily for psychology majors and minors.

106A. **Experimental Psychology.** (3) 1. ———
Design and performance of typical experiments on learning and thought activities, psychomotor functions, and sensation and perception. One hour lecture and six hours of laboratory per week.

106B. **Experimental Psychology.** (3) II. ———
Critical survey of experimental evidence on special problems with individual laboratory projects. One hour of lecture and six hours of laboratory per week.

107. **Statistical Techniques.** (3) I or II. Mr. Altus
Study of certain statistical techniques, such as measures of central tendency and of dispersion, the correlation of variables, the significance of differences and the like. The interpretation of statistical data in psychological and educational research.

108. **Physiological Psychology.** (3) I or II. ———
Study of the physiological mechanisms of human behavior. Examination of the physical structure and development of the human nervous system, with special emphasis upon its integrated function in all types of behavior.

110. **Educational Psychology.** (3) I, II. Mr. Durflinger
This course is identical with Education 110.

112. **Child Psychology.** (3) I or II. Mrs. Beaver
The psychological aspect of infant and child behavior. Motor, mental, emotional, and social phases of growth, and the development of language, meaning, imagination, thinking, reasoning, and solving of problems. Stresses the basis for method in personality development.

113. **Psychology of Adolescence.** (3) I or II. Mrs. Beaver
Study of the emotional, social, and intellectual growth of the adolescent, with special consideration of changing attitudes as the individual attains sexual maturation and adult physique.

126. **Contemporary Psychology.** (2) I or II. ———
Prerequisite: 12 units in psychology.
The emphasis will be upon the significant aspects of current psychological research. The class will be conducted as a seminar in which each student will present the results of his reading on some contemporary psychological problem. Required of seniors with a major in psychology.

145. **Social Psychology.** (2) I or II. The Staff
The psychological phenomena of social behavior and the influence of the social group on the development of the individual during infancy,

adolescence, and early adulthood. Ways of crowd and group behavior and their effect upon individual development through suggestion and imitation. The effects of public opinion and social control, racial and group prejudice, propaganda, and opinions about sex differences and race differences.

146. **Differential Psychology.** (3) I or II. ———
The study of data bearing on individual differences and of theories relating to their etiology.

148. **Psychology of Personality.** (3) I or II. Mrs. Beaver
Prerequisite: 6 units in psychology.
Present-day analysis and measurement of personality from the theoretical and practical viewpoints; traits and types of personalities; relationship of character and personality.

162. **Introduction to Clinical Psychology.** (3) I. Mr. Altus
Prerequisite: Psychology 1A–1B.
A study of clinical problem types, with part of the semester devoted to interviewing and individually testing at the lower age levels.
Two hours of lecture and three hours of laboratory each week.

163A. **Clinical Measurements Techniques.** (3) II. Mr. Altus
Prerequisite: Psychology 1A–1B, and for clinical majors, Psychology 162.
The techniques of individual intelligence testing, with special emphasis upon the adolescent and the adult. The interpretation of general aptitude test data from the standpoint of scatter, pattern analysis and indices of deterioration. The administration and interpretation of one individually administered, structured measure of adjustment will be included. Two hours of lecture and three hours of laboratory each week.

163B. **Clinical Measurements Techniques.** (3) I. Mr. Altus
Prerequisite: Psychology 163A.
Theoretical considerations of projective tests in measuring the personality structure; techniques of administering and scoring the *Rorschach Ink Blot Test.* Two hours lecture and three hours of laboratory each week.

164. **Clinical Psychology.** (3) II. Mr. Altus
Prerequisite: Psychology 163B.
An integration of the techniques of measuring adjustment and intelligence in their application to the individual case. Two hours of lecture and three hours of laboratory each week.

168. **Abnormal Psychology.** (3) I or II. Mr. Altus
A study of those who deviate in terms of psychoneurosis, psychopathy, or psychosis. The symptoms entering into each of the syndromes; theories of causation of each of the various types of mental disorder.

178. **Psychology of Exceptional Children.** (3) I or II. Mrs. Beaver
A study of handicapped children, both mentally and physically, and of those with superior endowment. Favorable or unfavorable traits are considered in respect of their educational and social implications; the needs of the children determined, and methods of guidance recommended. Two lectures and two hours of laboratory per week.

199. **Special Study for Advanced Students.** (1–5) I, II. The Staff
By permission of the chairman of the department, advanced students may carry on study or research under guidance of a member of the department.

Additional courses in psychology are offered in the Summer Session.

ENGLISH

Beulah B. Bayless, M.A., Lecturer in English.
Charles W. Bloom, M.A., Lecturer in English.
[2]Joseph Foladare, Ph.D., Associate Professor of English.
Genevieve W. Haight, M.A., Assistant Professor of English.
George Hand, Ph.D., Associate Professor of English.
Herbert J. Kramer, Ph.D., Instructor in English.
J. Chesley Mathews, Ph.D., Assistant Professor of English.
Edward G. Matousek, M.A., Lecturer in English.
William D. Mueller, Ph.D., Assistant Professor of English.
Robert E. Robinson, Ph.D., Assistant Professor of English.
Warren E. Schutt, A.B., Lecturer in English.
Joseph S. Stull, Ph.D., Instructor in English.
Douwe Stuurman, M.A., B.Litt., Assistant Professor of English.
Lawrence Willson, Ph.D., Assistant Professor of English.

Students must have passed Subject A (either examination or course) before taking any course in English. Regulations concerning Subject A are stated on page 32.

Requirements for the Major. (1) Lower Division. Students must pass courses 1A–1B, 53, and 83, *in sequence,* with an average grade of C or higher. At the beginning of the sophomore year each major student will be assigned to a faculty adviser for guidance in the preparation of his program and in reading for the Comprehensive Final Examination.

(2) Upper Division. (*a*) Students must take the following courses, adhering as far as possible to the order in which they are here listed:

	Units
English 117J. Shakespeare	3
English 156. The Age of Elizabeth or English 157. The Age of Milton	3
English 152. Chaucer	3
English 166. The Age of Swift and Pope or English 167. The Age of Johnson	3
English 130A. Survey of American Literature	3
English 177. The Romantic Age or English 187. The Victorian Age	3
English 198. Comprehensive Final Examination	1–3

(*b*) Foreign Language. Each student must complete French 4 or German 4 or demonstrate equivalent knowledge of either of these languages by passing an examination.

Requirements for the Minor. Students may take a minor by completing the following courses, *in sequence:* 1A–1B, 53, 102A–102B, 130A.

Subject A: English Composition. No credit. I, II. The Staff
Three hours weekly. Required for all students who do not pass the examination in Subject A.

[2] In residence spring semester only, 1949–1950.

Lower Division Courses

1A–1B. First-Year Reading and Composition. (3–3) Yr. The Staff
Beginning either semester.
1A. Intensive reading in selected literary masterpieces, accompanied by practice in composition.
1B. Further training in intensive reading and expository writing. English 1A–1B is prerequisite to all other courses in English.

27. Newswriting. (3) I. Mr. Schutt

41A–41B. Advanced Writing. (3–3) Yr. Mr. Hand
Writing in connection with the reading of important books of the nineteenth and twentieth centuries. Consent of instructor required. 41A is not prerequisite to 41B.

53. Introduction to the Study of Poetry. (3) I, II. Mr. Hand, Mr. Stuurman

83. The Hebraic and Hellenic Tradition. (3) I, II. Mr. Schutt, Mr. Stuurman

84. Continental Literature. (3) II. Mr. Stuurman
From Dante to Tolstoy.

Upper Division Courses

102A–102B. The British and American Tradition. (3–3). The Staff
Beginning either semester.
102A. Chaucer, Shakespeare, and Milton, with some attention to their contemporaries. English 53 is recommended as a prerequisite.
102B. Samuel Johnson, Benjamin Franklin, Wordsworth, and Emerson, with some attention to their contemporaries. Prerequisite: English 102A (or 46A).

106A. The Short Story. (3) I. Mr. Schutt
The writing of original stories, and the analytic study of the form. Consent of instructor required.

106G. Problems of Composition. (2) I. Mr. Hand, Mr. Robinson
Study and practice in reading, evaluating, and effecting improvement in the writing of expository prose. Consent of instructor required.

***106H. Expository and Critical Writing.** (3) II. ———
The writing of essays and critical articles. Consent of instructor required.

110. The Development of the English Language. (3) I. Mr. Matousek

***114A–114B. The English Drama.** (3–3) Yr. ———
114A. From the miracle plays through Ben Jonson.
114B. From Beaumont and Fletcher through Shaw. 114A is not prerequisite to 114B.

116. The English Bible as Literature. (3) II. Mr. Stuurman

117E. Shakespeare. (3) I. The Staff

* Not to be given, 1949–1950.

117J. **Shakespeare.** (3) II. Mr. Willson
For English majors.

120. **Modern Drama.** (3) II. ———
European and American drama from Ibsen to the present.

125. **The English Novel.** (3) I. Mr. Kramer

127. **Advanced Journalism.** (3) II. Mr. Schutt
Prerequisite: English 27 or its equivalent.

130A–130B. **Survey of American Literature.** (3–3).
Beginning either semester. Mr. Mathews, Mr. Willson
130A. Main American writers: Hawthorne, Melville, Whitman, Henry James.
130B. Selected American writers beginning with Poe. Prerequisite: English 130A.

132. **Studies in American Literature.** (3) I. Mr. Willson
Main developments in American thought studied in the writings of Edwards, Franklin, Emerson, and others. Prerequisite: English 130A.

133. **The Genteel Tradition in America.** (3) II. Mr. Willson
The writings of Longfellow, Whittier, Lowell, Holmes, Emily Dickinson, Frost, and Robinson. Prerequisite: English 130A.

143. **Interrelations of Literature and Philosophy.** (3) II. Mr. Stuurman
An attempt to arrive at working definitions of the terms literature and philosophy. Readings in Plato, Lucretius, Dante, and Goethe. Consent of instructor required.

152. **Chaucer.** (3) II. Mr. Mathews

153. **Contemporary British and American Verse.** (3) II.
Prerequisite: English 53. Mr. Hand, Mr. Willson

156. **The Age of Elizabeth.** (3) I. Mr. Mueller
Nondramatic literature of the Elizabethan period.

157. **The Age of Milton.** (3) II. Mr. Hand, Mr. Mueller

166. **The Age of Swift and Pope.** (3) I. Mr. Hand

167. **The Age of Johnson.** (3) II. Mr. Foladare

177. **The Romantic Age.** (3) I. Mr. Matousek, Mr. Stull

187. **The Victorian Age.** (3) II. Mr. Kramer, Mr. Robinson

190. **English and American Prose since 1900.** (3) II. Mr. Kramer
This course will emphasize forms of modern fiction.

191. **Children's Literature.** (3) II. Mrs. Haight
Extensive reading in children's literature. Emphasis upon the building of literary understanding in children and the analysis of principles underlying the choice of literature for children at successive age levels. (May not be counted toward English major or minor.)

198. **Comprehensive Final Examination.** (1–3) I, II. The Staff
This course is designed to give the student a comprehensive understanding of the chronological development of English literature and to foster in him a critical attitude. The course begins in the sophomore year when the student is presented with a "Comprehensive" list of books which he will read during the remainder of his undergraduate career, under the supervision of an adviser, who will also assist him in planning his schedule of courses. At the beginning of the junior year he will start to meet once a week with his adviser, to present critical papers, based on his reading, for analysis and discussion. At the end of his senior year, he will take his examination, consisting of two three-hour papers, on the whole course of study. Credit for the course is given at that time.

199. **Special Studies in English.** (1–3) I, II. The Staff
Reading and conferences for students of high scholastic standing.

FOREIGN LANGUAGES

William F. Aggeler, Ph.D., Assistant Professor of French.
Pablo Avila, Ph.D., Assistant Professor of Spanish.
Robert Beachboard, Doctorat d'Université, Assistant Professor of French.
Charles G. Fallis, Ph.D., Assistant Professor of Spanish and German.
Rolf N. Linn, M.A., Lecturer in German.
Edmond E. Masson, M.A., Lecturer in French.
Paul Périgord, Ph.D., Professor of French Civilization.
Eva J. Proulx, M.A., Instructor in French.
*Eda Ramelli, M.A., Professor of Spanish.
Andrés R. Ramón, LL.M., Lecturer in Spanish.
Samuel A. Wofsy, Ph.D., Assistant Professor of Spanish.

The Major in French:

Preparation for the Major. Courses 1, 2, 3, 4 (with a grade of A or B), or four years of high school French and course 25A–25B, or other equivalent to be tested by examination. If course 4 is passed with a grade lower than B, the student must complete course 25A–25B as prerequisite to upper division courses.

Students who wish to make French their major subject must have maintained at least an average grade of C in the college courses in French taken prior to their junior year.

Only students who pronounce French correctly and read it fluently will be admitted to upper division courses. Students transferring from other institutions may be tested by examination.

The Major. Required: 24 upper division units.

	Units
French 101A–101B. Conversation and Composition (May be omitted if 25A–25B (3–3) has been passed with a grade of A or B.)	3–3
†French 109A–109B. A Survey of French Literature from the Middle Ages through the Nineteenth Century	3–3

The remaining units may be completed from courses:

†French 112A–112B. The Nineteenth Century	3–3
French 120A–120B. The Seventeenth Century	2–2
French 121A–121B. The Eighteenth Century	2–2

The Major in Spanish:

Preparation for the Major. Courses 1, 2, 3, 4 (with a grade of A or B), or four years of high school Spanish and course 25A–25B, or other equivalent to be tested by examination. If course 4 is passed with grade lower than B, the student must complete course 25A–25B as prerequisite to upper division courses.

Students who wish to make Spanish their major subject must have maintained an average grade of at least C in the college courses in Spanish taken prior to their junior year.

Only students who pronounce Spanish correctly and read it fluently will be admitted to upper division courses. Students transferring from other institutions may be tested by examination.

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* Absent on leave, 1949–1950
† Not to be given, 1949–1950.

The Major. Required: 24 upper division units.

	Units
Spanish 101A–101B. Conversation and Composition (May be omitted if 25A–25B (3–3) has been passed with a grade of A or B.)	3–3
Spanish 107A–107B. A Survey of Spanish Literature from the Middle Ages to the Nineteenth Century	3–3

The remaining units may be completed from courses:

Spanish 102. Pronunciation of Spanish	2
Spanish 103A–103B. Nineteenth-Century Literature	3–3
Spanish 104A–104B. Spanish-American Literature	3–3
Spanish 111. Cervantes' *Don Quixote*	2
Spanish 113. Eighteenth-Century Literature	2

The Department of Foreign Languages offers minors in French and Spanish.

Preparation for the Minor. Courses 1, 2, 3, and 4 or four years of high school work in the chosen language. Students entering from high school and those completing course 4 with a grade lower than B must complete course 25A–25B.

The Minor. A minimum of 10 upper division units in the chosen language is required.

French

Lower Division Courses

In courses 1, 2, 3, and 4, sections meet five hours weekly.

1. Elementary French. Beginners' Course. (4) I, II. The Staff

2. Elementary French (continuation of 1). (4) I, II. The Staff

3. Intermediate French. (4) I, II. The Staff

4. Intermediate French (continuation of 3). (4) I, II. The Staff

25A–25B. Advanced French. (3–3) Yr. Mr. Beachboard
Prerequisite: course 4 or the equivalent.

40. Survey of French Culture and Civilization. (2) I, II. Mr. Périgord
Presentation of the larger cultural elements in European history as caused, influenced, diffused, or interpreted by the French people. Lectures in English, reading in French or English.

Upper Division Courses

101A–101B. Conversation and Composition. (3–3) Yr. Mr. Aggeler

***109A–109B. A Survey of French Literature from the Middle Ages through the Nineteenth Century.** (3–3) Yr. Mr. Beachboard

109M–109N. A Survey of French Literature and Culture. (3–3) Yr. Mr. Périgord
The Middle Ages through the nineteenth century. Lectures are given in English. Required reading is in French.
Prerequisite: a reading knowledge of French.

***112A–112B. The Nineteenth Century and Contemporary Literature.** (3–3) Yr. Mr. Beachboard

120A–120B. The Seventeenth Century. (2–2) Yr. Mr. Masson

* Not to be given, 1949–1950.

121A–121B. **The Eighteenth Century.** (2–2) Yr. — Mr. Aggeler

199. **Special Studies in French.** (1–3) I, II. — The Staff
Individual investigations in literary fields.

German

Lower Division Courses

In courses 1, 2, 3, and 4, sections meet five hours weekly.

1. **Elementary German. Beginners' Course.** (4) I, II. — The Staff

2. **Elementary German** (continuation of 1). (4) I, II. — The Staff

3. **Intermediate German.** (4) I, II. — The Staff

4. **Intermediate German** (continuation of 3). (4) I, II. — The Staff

Latin

Lower Division Courses

*1. **Elementary Latin.** (5). — Mr. Avila

*2. **Elementary Latin** (continuation of 1). (5). — Mr. Avila

Spanish

Lower Division Courses

In courses 1, 2, 3, and 4, sections meet five hours weekly.

1. **Elementary Spanish. Beginners' Course.** (4) I, II. — The Staff

2. **Elementary Spanish** (continuation of 1). (4) I, II. — The Staff

3. **Intermediate Spanish.** (4) I, II. — The Staff

4. **Intermediate Spanish** (continuation of 3). (4) I, II. — The Staff

25A–25B. **Advanced Spanish.** (3–3) Yr. — Mr. Avila
Prerequisite: course 4 or the equivalent.

Upper Division Courses

101A–101B. **Conversation and Composition.** (3–3) Yr. — Mr. Avila

102. **Pronounciation of Spanish.** (2) I, II. — Miss Ramelli

*103A–103B. **Nineteenth-Century Literature.** (3–3) Yr. — Mr. Wofsy

*104A–104B. **Spanish-American Literature.** (3–3) Yr. — Mr. Avila

107A–107B. **A Survey of Spanish Literature from the Middle Ages to the Nineteenth Century.** (3–3) Yr. — Mr. Wofsy

111. **Cervantes' Don Quixote.** (2) I. — Mr. Ramón

113. **Eighteenth-Century Literature.** (2) II. — Mr. Ramón

199. **Special Studies in Spanish.** (1–3) I, II. — The Staff
Individual investigations in literary fields.

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* Not to be given, 1949–1950.

HOME ECONOMICS

*Charlotte E. Biester, M.A., Professor of Home Economics.
Alice V. Bradley, M.A., Professor of Home Economics.
Elaine C. Kingston, B.S., Instructor in Home Economics.
Ruth Major, Ph.D., Assistant Professor of Home Economics.
Florence C. Meredith, M.A., Professor of Home Economics.
Edna D. Meshke, Ph.D., Professor of Home Economics.
Marion E. Peterson, M.A., Assistant Professor of Home Economics.
Dorothy M. Schnell, M.S., Assistant Professor of Home Economics.
Frances M. Spike, M.S., Lecturer in Home Economics.
Marie Wilson, M.S., Instructor in Home Economics.

Requirements for a Major in Home Economics Leading to the B.A. Degree

Core curriculum required of all majors in the Division of Applied Arts. (See page 52.)

Forty units in home economics as follows:

Required Courses

Title	Course No.	Units
Household Equipment	Home Economics 4	2
Food Study	Home Economics 9A and 9B	6
Nutrition and Health of the Family	Home Economics 10	
or Nutrition and Dietetics	Home Economics 103A	2–3
Introductory Home Economics	Home Economics 12	2
Child Care	Home Economics 13	2
Home Planning and Decoration	Home Economics 15	3
Textile Study	Home Economics 90	2
Dress Design and Selection	Home Economics 93	2
Clothing Construction	Home Economics 95	3
Child Care Laboratory	Home Economics 133	2
Home Management Principles	Home Economics 140	2
Home Management Practice	Home Economics 142	2
		30–31

Elective Courses

To complete a balanced program,
or to meet American Dietetics Association Standards,
or to fulfill requirements for a Special Secondary Teaching Credential.

9–10 units

Lower Division Courses

4. **Household Equipment.** (2) I, II. The Staff
Study of the selection, use, and care of home equipment; consideration of construction features, initial and operational costs, and labor-saving values. Two three-hour laboratories.

* Absent on leave, 1949–1950.

9A–9B. **Food Study.** (3–3) I, II. Miss MAJOR
Scientific study of foods; development of skill in selection, purchase, preparation, and service of food. One lecture and two three-hour laboratories weekly.

9C. **Food Study.** (3) II. Mrs. KINGSTON
Designed for nonmajors; a study of underlying principles involved in the preparation and serving of various types of foods. One lecture; two two-hour laboratory periods.

10. **Nutrition and Health of the Family.** (2) I, II. Miss BRADLEY
Fundamental principles of human nutrition; promotion and maintenance of health and efficiency in adults and children through desirable food selection, habits, and health practice; digestion, excretion, and elementary metabolism. Two lectures; one three-hour laboratory period for the pre-nursing student. Open to noncredential home economics students and to nonmajors.

11. **Meal Management.** (2) I, II. Mrs. WILSON
Prerequisite: course 9B.
Planning, preparing, and serving meals; emphasis upon costs, equipment, management, and guest functions. One lecture; one three-hour laboratory period.

12. **Introductory Home Economics.** (2) I. Miss BIESTER
Study of the selected principles of home and family living; individual management problems involved in adjustments to college residential situations.

13. **Child Care.** (2) I, II. Miss PETERSON
A study of the physical, emotional, and social needs of the infant and young child in relation to his membership in the family. Observation of young children in well-baby clinics and nursery schools.

14. **Consumer-Buying.** (2) I, II. Miss BIESTER
A nontechnical discussion of standards for selection of consumer goods; evaluation of agencies aiding and protecting the consumer; methods of improving the purchasing ability of the consumer under existing market conditions. Not accepted for credit toward the major.

15. **Home Planning and Decoration.** (3) I, II. Mrs. WILSON
Designed to give a background in home planning and decoration, to develop an appreciation of principles of art as they are related to everyday problems. Laboratory work consists of analysis and development of house plans and individual projects involving home furnishings.

25. **Quantity Cookery.** (2) I, II. Miss SPIKE
Prerequisite: courses 9A, 9B, and 11.
Principles of cookery adapted to large-quantity preparation of food in the college cafeteria; standardization of formulae, calculation of costs, care and operation of equipment. Planning menus for school lunchrooms, hospitals, and commercial cafeterias. Two three-hour laboratory periods.

90. **Textile Study.** (2) I, II. Miss MESHKE
Textile fibers and the fabrics made from them; historical background, production, and manufacture; understanding and evaluation of new fibers, new fabrics, and new finishes.

93. **Dress Design and Selection.** (2) I, II. Mrs. Meredith
Choice of wearing apparel and accessories based upon an analytical and diagnostic study of color and design principles in relation to an individual's physical characteristics, grooming problems, and personality traits. One lecture; one three-hour laboratory period.

95. **Clothing Construction.** (3) I, II. Mrs. Meredith
Prerequisite: courses 90 and 93.
Problems in clothing construction based upon the student's need, interest and ability; study of ready-made garments with instruction in restyling, refitting, or remaking. One lecture; two three-hour laboratory periods.

96. **Children's Clothing.** (2) II. Mrs. Meredith
Prerequisite: course 95.
Problems involved in selecting, planning, and making children's clothing; garments designed with emphasis upon self-help, constructed for children who can be studied and fitted in the laboratory. Two three-hour laboratory periods.

Upper Division Courses

101. **Advanced Clothing Construction.** (2) I, II. Miss Meshke (Lecture)
Prerequisite: course 95. Mrs. Kingston (Laboratory)
Selection and manipulation of fabrics; construction of garments in wool, silk, and synthetics, emphasizing fundamental principles of handling and sewing machine operation. Two three-hour laboratory periods.

102. **Experimental Cookery.** (2) II. Miss Major
Prerequisite: courses 9A–9B, Chemistry 10A, 100.
A study of scientific principles and approved experimental methods involved in the preparation of foods in which variables (ingredients, proportions, and techniques) may affect quality. One lecture; one three-hour laboratory period.

103A. **Nutrition and Dietetics.** (3) I, II. Miss Bradley
Prerequisite: courses 9A–9B, Chemistry 10A, 100.
Principles of normal human nutrition as modified by age, sex, and occupation. A study of basal metabolism and of metabolism of all food groups. Calculation and preparation of diets to meet the normal needs of individuals and groups; cost dietaries. Construction and use of visual aids for the teaching of nutrition. Two lectures; one three-hour laboratory period.

103B. **Nutrition and Dietotherapy.** (3) I, II. Miss Bradley
Prerequisite: course 103A.
Abnormal nutrition; dietary treatment of diseases such as diabetes, nephritis, gastrointestinal disorders, and others. Case problems include urinalyses and their interpretation in reference to the diet; basal metabolism tests. Critical analyses of research, current literature, and radio programs in the field of nutrition. Two lectures; one three-hour laboratory period.

109. **Recent Findings in Nutrition.** (2) Yr. Miss Major
Prerequisite: course 103A or its equivalent.
Designed for the professional person interested in current progress in the nutrition field. Course includes reports, reviews, and discussions of scien-

tific literature; special attention given to recent findings of carbohydrate, protein, and fat metabolism; the vitamins, the minerals; diet and its relation to disease; food fads or fallacies.

111. **Clothing Economics.** (2) II. Miss MESHKE
Economic aspects of the production and distribution of textiles and ready-to-wear clothing which directly or indirectly affect the consumer. Buying points and evaluation of buying guides. Individual and family clothing budgets. Open to any student with senior standing.

115. **Clothing in the Commercial Field.** (3) I. Miss BIESTER
Prerequisite: courses 101, 111.
Fashion merchandising, store organization, and salesmanship.

121. **Tailoring.** (2) II. Mrs. MEREDITH
Prerequisite: courses 95, 101.
Study of fabrics, design, and construction principles suitable for tailored garments. One lecture; one three-hour laboratory period.

125. **Demonstration Methods.** (2) II. The STAFF
Individual experience in the selection, organization, and presentation of project materials utilizing professionally recognized demonstration techniques; observation and evaluation of professional demonstrations. One lecture; two laboratory periods.

133. **Child Care Laboratory.** (2) I, II. Miss PETERSON
Prerequisite: course 13.
Analysis and interpretation of child care principles through participation in organized program of work with a group of preschool children. One lecture and three morning hours weekly to be arranged.

134. **Organization and Administration of Institutions.** (2) I, II. Miss SPIKE
Prerequisite: courses 9A, 9B, 11, and 103A.
The organization and administration of food service in various types of institutions. Emphasis on methods of administration, personnel management, purchasing of food and supplies, records and accounts. Selection and arrangement of equipment for schools, hospitals, and commercial and civic institutions. One lecture; one three-hour laboratory.

135. **Institutional Buying.** (2) I, II. Miss SPIKE
Prerequisite: courses 9A, 9B, 11, and 103A.
Institutional marketing, with emphasis upon marketing for school lunch programs. Production and distribution of food commodities, marketing costs, factors influencing prices, marketing of special foods such as eggs, fruits, meats, and vegetables. One lecture; one three-hour laboratory.

140. **Home Management Principles.** (2) I, II. Miss BIESTER
Prerequisite: Economics.
Study of work-simplification programs, systematic household practices, and organization of resources basic to achievement of objectives in family living.

141. **Consumers and the Market.** (2) I. Miss BIESTER
Prerequisite: Economics and senior standing.
Study of marketing structure, functions, and conditions basic to the solution of consumer problems in selection of goods for home consumption. Evaluation of agencies aiding consumers.

142. **Home Management Practice.** (2) I, II. The Staff
Prerequisite: courses 4, 11, 103A, 140.
Students organized as a family group live in the Home Management House and solve homemaking problems in connection with food preparation and serving, housekeeping, household finance, hospitality, and satisfactory human relationships.

150. **House Planning.** (3) I. Mrs. Wilson
Prerequisite: Art 1.
Historic, artistic, economic, and functional aspects of housing; appraisal of house plans in terms of optimum family living. Three lecture hours.

195. **Home and Community Relationships.** (2–3) I. Miss Biester
Prerequisite: senior standing, consent of the instructor, and Home Economics 190.
Laboratory experience in the utilization of the practices of home economics in youth and adult organizations. One one-hour conference; two three-hour periods of field work.

196. **Counseling and Guidance for Home and Community Life.** (2–3) II.
Miss Biester
Prerequisite: senior standing and consent of the instructor.
Criteria for understanding and evaluating individual and group reactions; contributions which home and community leaders may make to citizenship programs for young people.

199. **Problems in Home Economics.** (1–3) I, II. The Staff
Individual problems in various phases of home economics.

Related Courses in Another Department

Education H 190. Teaching Procedures in Home Economics. (4) I, II.
Mrs. Schnell

Education H 192A. Student Teaching in Foods and Nutrition. (2), I, II.
Mrs. Schnell

Education H 192B. Student Teaching in Homemaking. (2) I, II.
Mrs. Schnell

Education H 192C. Student Teaching in Textiles and Clothing. (2) I, II.
Mrs. Schnell

INDUSTRIAL ARTS

RICHARD W. BOADEN, M.S., Instructor in Industrial Arts.
DARVEY E. CARLSEN, M.S., Assistant Professor of Industrial Arts.
THEODORE S. ELLENWOOD, A.B., Instructor in Industrial Arts.
[2] EMANUEL E. ERICSON, M.A., Professor of Industrial Arts.
FRED L. GRIFFIN, A.B., Assistant Professor of Industrial Arts.
JOHN M. GROEBLI, M.S., Instructor of Industrial Arts.
CLYDE KEENER, A.B., Instructor in Industrial Arts.
WILLIAM G. KNIFE, M.A., Assistant Professor of Industrial Arts.
FLORENCE W. LYANS, M.A., Assistant Professor of Industrial Arts.
ROBERT A. MCCOY, M.Ed., Instructor in Industrial Arts.
HAROLD J. MILLER, M.S., Assistant Professor of Industrial Arts.
LYNNE C. MONROE, Ed.D., Professor of Industrial Arts.
RALPH K. NAIR, M.S., Assistant Professor of Industrial Arts.
JOSEPH J. SAYOVITZ, M.S., Instructor of Industrial Arts.
ARTHUR O. SCHRICKER, M.A., Instructor of Industrial Arts.
KERMIT A. SEEFELD, M.Ed., Assistant Professor of Industrial Arts.
ROY L. SOULES, M.S., Professor of Industrial Arts.
*LOUIE S. TAYLOR, M.A., Assistant Professor of Industrial Arts.
SCHURER O. WERNER, M.A., Associate Professor of Industrial Arts.

The Department of Industrial Arts includes the fields of industrial arts, graphic arts, and applied horticulture.

General Requirements: Students with a major in industrial arts who wish to work toward a bachelor's degree must satisfy general requirements listed on page 52.

Requirements for the Bachelor of Arts Degree with a Major in Industrial Arts: Students working toward a degree, with a major in industrial arts, are required to complete the following courses in the department:

	Units
Industrial Arts 11. Woodworking—Fundamentals	3
Industrial Arts 20. Metalworking—Fundamentals	3
Industrial Arts 50. Electricity—Fundamentals	3
Industrial Arts 107. Industrial Relations	3
Industrial Arts 108. Methods in Industrial Supervision	2
Industrial Arts 182. Industrial Management and Organization	3
Graphic Arts 1. Freehand Drawing and Sketching	2
†Graphic Arts 2. Introduction to Mechanical Drafting	2
Graphic Arts 5. Industrial Drafting	3
Graphic Arts 105. Industrial Arts Design	2
Departmental requirements outside the major department:	
Economics 6A. Principles of Accounting	3
Economics 150. Labor Economics	3

[2] In residence spring semester only, 1949–1950.
* Absent on leave, 1949–1950.
† One year of drafting in senior high school may be substituted for this requirement. (No college credit may be allowed for high school work.)

In addition to the required courses in industrial arts, the student shall elect additional industrial arts courses to complete a major of 40 units as a basic minimum. These courses shall constitute a coördinated curriculum in industrial arts, graphic arts, and applied horticulture. The selection of these courses must be approved by the Chairman of the Department of Industrial Arts or his representative.

Requirements for the Bachelor of Arts Degree with a Major in Industrial Arts and a California Special Secondary Credential in Industrial Arts:

	Units
Industrial Arts 11. Woodworking—Fundamentals	3
Industrial Arts 20. Metalworking—Fundamentals	3
Industrial Arts 30. Fundamentals of Transportation Machinery	3
Industrial Arts 50. Electricity—Fundamentals	3
Graphic Arts 1. Freehand Drawing and Sketching	2
†Graphic Arts 2. Introduction to Mechanical Drafting	2
Graphic Arts 5. Industrial Drafting	3
Graphic Arts 105. Industrial Arts Design	2
Required courses in education:	
Education 57 or 157. Introduction to the Study of Education	3
Education 110. Educational Psychology	3
Education 147. Audio-Visual-Radio Education	2
or 185. Workshop in Teaching Aids	2
Education 164. Educational and Vocational Guidance	3
Education 170. Secondary Education	2
Education I 190A. Teaching Procedures in Industrial Arts	2
Education I 190B. Content and Materials in Industrial Arts	2
Education I 190C. Curriculum Development in Industrial Arts	2
Education I 192A. Student Teaching in Industrial Arts	3
Education I 192B. Student Teaching in Industrial Arts	3

In order to qualify for recommendation of the department for the teaching credential, the candidate must pass the stipulated speech test or Speech 11; complete the proficiency tests before being assigned to directed teaching; and have an average scholarship grade of C or higher in all technical courses completed. The applicant for the credential must also pass the required physical examination.

Requirements for Minors in Industrial Arts: Not less than 18 semester units of industrial arts are required for a minor, 6 units of which must be upper division courses. The following subject-matter fields are offered. The selection of courses is subject to the approval of the Chairman of the Department of Industrial Arts or his representative.

1. Aeronautics
2. Applied Horticulture
3. Automotive Work
4. Electrical and Radio Work
5. General Metal Work
6. Industrial Arts Crafts
7. Industrial Arts for Elementary Grades
8. Mechanical Drafting
9. Photography
10. Printing
11. Woodwork
12. Machine Shop

Courses in the Department of Industrial Arts may be selected by students of other departments according to their needs and interests, provided the prerequisites for such courses are satisfied.

† One year of drafting in senior high school may be substituted for this requirement. (No college credit may be allowed for high school work.)

Industrial Arts

Lower Division Courses

4A–4B. **Elementary Machine Shop.** (3–3) Yr. Mr. Schricker
The fundamental operations in the machine shop, care and use of hand tools, layout work, benchwork, simple lathe turning, screw thread-cutting, and taper work.

11. **Woodworking—Fundamentals.** (3) I, II. Mr. Boaden, Mr. Ellenwood
Analysis and application of the fundamentals of woodworking and wood turning. Includes nomenclature, processes, techniques and the care and suitability of tools and materials.

12. **Machine Woodworking and Cabinet Construction.** (3) I, II. Mr. Griffin
Prerequisite: course 11, Graphic Arts 5.
The training in operation and upkeep of woodworking machinery in the construction of various types of cabinetwork, casework, and furniture.

20. **Metalworking—Fundamentals.** (2 or 3) I, II. Mr. Taylor, Mr. Groebli
A basic laboratory course offering fundamental theory and practice in metalworking processes and tool operations as used in modern industry.

21. **Forging and Welding.** (2) I, II. Mr. Taylor
The principles and practices of forging, testing, and heat-treatment of steels, oxyacetylene; AC and DC electric arc welding and their practical application to industry.

30. **Fundamentals of Transportation Machinery.** (3) I, II. Mr. Keener
An introduction to the nature and construction of transportation equipment used in modern society. Field trips are included.

31. **Automotive Maintenance and Operation.** (3) II. Mr. Keener
Economics of selection, operation, and maintenance of the automobile.

32. **Fundamentals of Automotive Repair.** (3) I. Mr. Keener
Prerequisite: course 20 or equivalent.
Study of the construction and maintenance of the automobile, with practice on laboratory equipment and live cars.

50. **Electricity—Fundamentals.** (3) I. Mr. Sayovitz
A study of the basic fundamentals of electricity correlated with the use of tools and electrical materials in the laboratory.

61. **Basic Radio.** (3) I, II. Mr. Sayovitz
Electrical phenomena as applied to radio circuits and equipment used in receiving sets.

90. **Technology in Modern Living.** (2 or 3) I, II. The Staff
An introduction to major technological developments affecting industry and modern living. Lectures, motion pictures, and limited laboratory experience. Field trips included.

93A–93B. **Industrial Arts for Elementary Schools.** (2–2) Yr. Mr. Knife
A study and experience course aimed to help develop competence by teachers in the use of diversified art materials and tools through projects typical of the interests and needs of children.

Upper Division Courses

101. Estimating and Buying of Industrial Materials and Equipment. (3) I, II. Mr. Miller
Problems involved in specifications, purchase orders, contracts, and bids. Estimating and calculating costs of materials and equipment.

102. Building Estimating. (2 or 3) I, II. Mr. Werner
Study of plans and specifications for frame dwellings, materials required, costs, building codes, subcontracting, and utilities.

103. Survey of Occupations. (2) I, II. Mr. Nair
Collection and dissemination of occupational information, including distribution, classifications, patterns, and trends.

104A–104B. Advanced Machine-shop Practice. (3–3) Yr. Mr. Schricker
Prerequisite: course 4A or 4B.
Study and practice in the more exacting machining processes with work on lathes, milling machines, shapers, grinders, planers, and drilling machines, involving direct application of mathematics and machine-shop theory.

105A–105B. Toolmaking and Designing. (3–3) Yr. Mr. Schricker
Prerequisite: course 104A or 104B.
An advanced course in design and construction of tools, jigs, fixtures, dies, and machine parts. Advanced theory and applied mathematics are also included.

107. Industrial Relations. (3) II. Mr. Nair
A comprehensive treatment of the various factors involved in industrial relations; includes policies, trends, procedures, pertinent laws, and accepted practices.

108. Methods in Industrial Supervision. (2) I. Mr. Nair
The qualifications, techniques, and responsibilities of industrial supervision. The principles of leadership in the functions of directing, controlling, and coördinating the combined efforts of men, machines, and material.

111A–111B. Boat Building. (3–3) Yr. Mr. Ellenwood
Prerequisite: course 12.
The fundamentals of boat design and construction. Laboratory work will include designing and building of paddle boards, kayaks, bantam dinghies, centerboard sailboats, and motor boats. 111B covers design and construction of larger yachts, involving steam bending.

112. Furniture Construction. (3) I. Mr. Ellenwood
Prerequisite: course 12.
The analysis of the construction of domestic furniture with applied experience through selected laboratory projects.

113. Period Furniture. (2) I, II. Mr. Ellenwood
Prerequisite: course 12.
The study of period furniture including upholstery, decoration, and carving as appropriate. Laboratory and lecture.

115. Painting and Woodfinishing. (2) II. Mr. Griffin
Prerequisite: course 11 or equivalent.
An analysis of wood finishes and woodfinishing processes with applied laboratory experience using a wide variety of standard finishes.

124A–124B. **Sheet-metal Work.** (2–2) Yr. Mr. Taylor
Prerequisite: courses 20 and Graphic Arts 5.
A course involving theoretical and practical aspects of working and using the various sheet metals through laboratory experience, lectures, and classroom discussions.

127A–127B. **Art Metalwork.** (2–2) Yr. Mr. Taylor
Design and construction of ornamental articles of copper, brass, Britannia metal, silver, aluminum, nickel, bronze, and other nonferrous metals.

131. **Motor Tune-up.** (3) II. Mr. Keener
Prerequisite: course 32 or equivalent.
Instruction in the use of motor tune-up test equipment, including exhaust analysis and the operation of the electric dynamometer.

132A–132B. **Advanced Automotive Work.** (3–3) Yr. Mr. Keener
Prerequisite: course 32.
An advanced course in the study of more intricate phases of automotive maintenance, with emphasis on design and materials.

133. **Automotive Electrics.** (2 or 3) II. Mr. Keener
Prerequisite: course 32.
The theory, construction, maintenance, and repair of the electrical devices used in starting, lighting, and ignition of automobiles.

150A. **Direct Current Circuits.** (3) I. Mr. Sayovitz
Prerequisite: course 50.
Magnetism, resistance, and wire sizes. Ohm's Law, series and parallel circuits, power, primary and secondary cells, meters, electromagnetism cells, induced electromagnetic forces, direct current motors and generators, and distribution.

150B. **Alternating Current Circuits.** (3) II. Mr. Sayovitz
Prerequisite: course 50.
Inductance, capacitance, impedance, power relationships, meters, single phase and polyphase circuits, transformers, alternating current motors, and generators, distribution systems, house and power wiring, control circuits and devices, rectifiers.

151. **Electric Motors and Motor Winding.** (3) II. Mr. Sayovitz
Prerequisite: course 150.
An advanced course in electrical work involving repair of electrical equipment and motor winding, as well as maintenance of household and heavier equipment.

152A–152B. **Advanced Electrical Laboratory Work.** (3–3) Yr. Mr. Sayovitz
Prerequisite: courses 50 and 61.
Study of electrical appliances and electrical machinery used in home and in industry. Practice in the repair of such appliances and machinery; study of manufacturing. Radio repair and construction may also be included.

155. **Industrial Electronics.** (3) II. Mr. Sayovitz
Study and application of electronic devices in modern industry.

162A–162B. **Radio Construction and Installation.** (3–3) Yr. The Staff
Prerequisite: course 61.
Theory and practice in the construction of radio sets of various types, in connection with the principles of short-wave operation and installation.

167A–167B. **Advanced Radio and Television.** (3–3) Yr. The Staff
Prerequisite: course 61.
Advanced problems in radio and sound work and short-wave communications, including fundamental aspects of television.

170A–170B. **Stagecraft and Stage Construction.** (3–3) Yr. The Staff
Prerequisite: course 11 and Graphic Arts 1.
Problems involved in design, construction, and decoration of stage scenery and other accessories. The problems of lighting and sound are given emphasis in 170B.

172A–172B. **Industrial Arts Crafts.** (2 or 3) Yr. Mr. Knife
Diversified arts and crafts laboratory devoted to the design and development of problems in leather, wood, plastics, metals, reeds, fibers or combinations of these materials.

175. **Sportscrafts.** (1 or 2) II. The Staff
A course offering opportunities for students to design, construct, maintain, and repair sports equipment.

178. **Model Making.** (2 or 3) II. Mr. Knife
Prerequisite: courses 11 and 12.
Planning and development of scale models through study and laboratory work on selected projects. Field trips included.

179A–179B. **Early Childhood Education Integrated Craftwork.** (2–2) Yr.
Mrs. Lyans
A course designed to develop self-expression in integrated handwork in preschool and primary grades. Constructive work in materials as a medium of self-expression will include easel painting, modeling, working with wood, paper, and cardboard, pasting, using crayons, and working with natural and discarded materials.

182. **Industrial Management and Organization.** (3) I. Mr. Nair
An analysis of fundamental problems in industrial management. Includes a study of the plant, personnel, the product, managerial controls, and operating procedures.

183. **General Metal Shop Organization for Teachers.** (3) II. Mr. Taylor
Prerequisite: courses 21, 124A, 127A.
Designed to give advanced students training in organization and management of the general metal shop in junior and senior high schools, and an opportunity to develop teaching aids, projects, project designs, and additional skills in the various fields of metal work. Field trips are included.

191. **Manipulative Work for the Integrated Program in Primary and Elementary Grades.** (3) I, II. Mrs. Lyans
Prerequisite or taken concurrently: Education El 190.
For primary and elementary teachers to develop an acquaintance and skill in the use of materials in an activity program. The integration of handwork activities with the primary and elementary program is emphasized with stress on sources of materials.

194. **Expressive Activities for Early Childhood.** (2) II. Miss VanDeman
Provides experiences with various environmental media in the school of early childhood—nursery, kindergarten, and primary years, including the construction of visual education materials, simple musical instruments, and educational play materials.

195A. **Organization, Objectives, and Supervision of Instruction in Industrial Arts Education.** (3) I. Mr. MONROE

195B. **Problems of Supervision in Industrial Arts Education.** (3) II. Mr. MONROE

199. **Studies in Industrial Arts.** (1–6) The STAFF

Graphic Arts

LOWER DIVISION COURSES

1. **Freehand Drawing and Sketching.** (2) I, II. Mr. GROEBLI
Designed primarily for students in the field of industrial education to enable them to develop skill in expressing ideas in drawing that will illustrate and clarify other school subjects.

2. **Introduction to Mechanical Drafting.** (2) I, II. Mr. MILLER
One year of senior high school drafting or equivalent may be substituted for this requirement.
Instruction and practice in lettering and use of mechanical drawing instruments; solution of geometric problems; theory and execution of orthographic projection; and working drawing.

3. **Engineering Drawing.** (3) I. Mr. MILLER
Prerequisite: course 2 or equivalent, and plane geometry or analytic geometry.
Geometric construction; pictorial representation; theory of orthogonal projection; sections, auxiliary views, simple working drawings, and dimensioning.

4. **Architectural Drafting.** (3) II. Mr. WERNER
Prerequisite: course 2 or equivalent.
Principles and practice of drawing as applied to house-planning, furniture representation, and architectural details. Includes lettering and the technique of architectural drafting.

5. **Industrial Drafting.** (3) I, II. Mr. GROEBLI, Mr. MILLER
Prerequisite: course 2 or equivalent.
Theory and practice in practical aspects of machine drawing, furniture production, sheet-metal development, aeronautical drafting, boat design, lofting, electrical drafting, pipe layout. Field trips are included.

7. **Home Planning.** (3) I, II. Mr. WERNER
Prerequisite: course 2 or equivalent.
The common problems involved in planning a house: styles of domestic architecture and the principles of design; home sites, building codes, materials and costs. Making scaled freehand sketches, as well as conventional drawings of floor plans and elevations. Field trips are included.

70A–70B. **Elementary Photography.** (3–3) Yr. Mr. MCCOY
The practice of photography for personal and educational use. Composition, darkroom technique, lighting, portraiture, and picture making in general.

80A. **Typography.** (3) I. Mr. CARLSEN
A study of the basic principles of typography, straight-matter composition, simple display jobs, proofing, care of type and materials; platen presswork.

80B. **Typography.** (3) II. Mr. Carlsen
Prerequisite: course 80A.
Conventional and contemporary styles in typography. Problems in job, periodical, newspaper composition. Copy preparation and proofreading. Miehle vertical and horizontal press operation. Field trips are included.

85A–85B. **Linotype Operation.** (3–3) Yr. Mr. Carlsen
Principles and operation involved in linotype composition.

Upper Division Courses

101. **Advanced Freehand Drawing and Mechanical Perspective.** (2) II.
Prerequisite: course 1. Mr. Seefeld
Study and practice in the following: line technique, shade and shadows, mechanical perspective, blackboard technique, and color, in their application to such products of industry as furniture, machinery, buildings, and craftwork.

102A–102B. **Architectural Drafting and Design.** (2–2) Yr. Mr. Werner
Prerequisite: courses 1, 2, 4 or 7.
The theory and practice of making plans and specifications for dwellings. Study of historic styles of domestic architecture and application of principles of design. Estimating, building ordinances, and topographical drawing from field notes, and field trips.

105. **Industrial Arts Design.** (2 or 3) I. Mr. Seefeld
Prerequisite: courses 1 and 2 or equivalent.
The principles of structural design, with emphasis on the design and construction of articles of furniture and other projects for production in school shops. Consideration of the use and effect of color as a factor in design.

106A–106B. **Advanced Machine Drawing and Design.** (3–3) Yr. Mr. Miller
Prerequisite: courses 1 and 2 or equivalent.
Theory and drafting with application to motion, power transmission, gears, and cams; machine and tool design.

107A–107B. **Aeronautical Drafting.** (3–3) Yr. Mr. Miller
Prerequisite: course 5.
A practical course, applying army and navy standards to the study of factory blueprints of wing profiles, control surfaces, fuselage structures, landing gears, and boat hulls.

108. **Descriptive Geometry.** (3) II. Mr. Miller
Prerequisite: course 2, plane geometry and trigonometry, and Mathematics 3A taken concurrently.
The application of the principles of descriptive geometry to the solution of engineering problems.

170A–170B. **Cinematography.** (3–3) Yr. Mr. McCoy
Prerequisite: one year of photography.
The theory and practice of making motion pictures; cutting, editing, sound recording, lighting, and composition are studied in their relation to education and entertainment.

171A–171B. **Color Photography.** (3–3) Yr. Mr. McCoy
Prerequisite: course 70A–70B.
Theory and practice of taking pictures in color and making color prints. Field trips included.

172A–172B. **Advanced Photography.** (3–3) Yr. Mr. McCoy
Prerequisite: course 70A–70B.
Practice and study in refining the techniques of taking landscapes, portraits, still life and other special types of photographs. Special work will be given in color photography.

180A–180B. **Printing Plant Management.** (3–3) Yr. Mr. Carlsen
Prerequisite: course 80A–80B or equivalent.
Designed to give the student information and practice in the organization and management of all departments of the printing plant, including the requisitioning of stock and equipment, and field trips.

181. **Printing Estimating and Production.** (3) I, II. Mr. Carlsen
Prerequisite: course 180A–180B.
Estimating on all classes of composition, presswork, binding, paper, photoengraving and electrotypes. Production problems of the industry; planning, layout, and scheduling of all types of printing.

183. **Typographical Layouts and Design.** (3) I, II. Mr. Carlsen
Prerequisite: courses 80A–80B.
The designing of books, booklets, brochures, and broadsides with regard to their function. Training in making "thumbnails," "roughs," and "comprehensives," incorporating the priniciples of space break-up, movement balance, type legibility, and pictorial composition.

184A–184B. **Photolithography.** (3–3) Yr. Mr. Carlsen
Prerequisite: course 183.
The fundamentals of lithography, including the mixing and analysis of chemicals; practice in the production and care of albumin and deep-etch plates; offset press operation. Line, half-tone, and color production by the photolithographic process.

185. **Advanced Presswork.** (3) II. Mr. Carlsen
Practice and study in the more complex problems in the pressroom; half-tone make-ready, hair-line register, scoring, die cutting, and embossing; mechanical adjustment of presses. Folding machine operation.

199. **Studies in Graphic Arts.** (1–6) The Staff

Applied Horticulture

Lower Division Courses

4A–4B. **School and Home Gardening.** (2–2) Yr. Mr. Boaden
Offering teachers and amateur gardeners opportunity for study and practice in propagation of garden seeds and plants, classification, treatment, cultivation, and irrigation of soils. Includes planning gardens from the standpoint of form and color. Includes field trips.

9A–9B. **Principles of Horticulture.** (3–3) Yr. Mr. Boaden
Maintenance, as applied to small gardens and nursery work; planning, cultivating, irrigating, and pruning. Includes field trips.

14. **Plant Identification.** (2 or 3) II. Mr. Boaden
Collection, identification, and terminology of ornamental and useful plants. Includes field trips.

19A–19B. **Plant Propagation.** (3–3) Yr. Mr. Boaden
Experience in lathhouse and greenhouse practice, the starting and growing of flowers from seed, propagation of vegetative cuttings, and budding of plants. Includes field trips.

24A–24B. **Nursery Practice.** (2–2) Yr. Mr. Boaden
Prerequisite: course 9.
The propagation of plants in the open ground, and field trips.

Upper Division Courses

104. **Garden Design.** (3) II. The Staff
Prerequisite: course 14 or equivalent.
Theory and practice in executing plans for private gardens and landscape beautification. Field trips included.

109. **Small Garden Planning and Layout.** (2) I, II. Mr. Boaden
Prerequisite: course 104 or equivalent.
Application of garden plans to full-scale layout in the field. Field trips included.

112. **Field Practice.** (3) I, II. Mr. Boaden
Prerequisite: course 24A or 24B or equivalent.
Advanced course, comprising the more difficult problems of water supply, plant nutrition, and pest control as encountered in open-ground cultures. Field trips included.

116A–116B. **Individual Projects.** (3–3) Yr. Mr. Boaden
Projects in the work may be in the field in which there has been previous experience, as selected by the student. The project will be selected and guided so as to develop individual initiative and responsibility. Field trips included.

124. **Garden and Nursery Management.** (3) I, II. Mr. Boaden
Prerequisite: course 24A or 24B or equivalent.
Experience in managing various phases of horticultural work; keeping records, reporting, business methods; and foremanship training. Field trips included.

199. **Studies in Applied Horticulture.** (1–6) The Staff

MATHEMATICS

HARRY LASS, Ph.D., Instructor in Mathematics.
STANLEY E. RAUCH, Ph.D., Associate Professor of Mathematics.
LEWIS F. WALTON, Ph.D., Assistant Professor of Mathematics.

General Requirements. Students with a major in the Department of Mathematics who wish to work toward a bachelor's degree must satisfy the general requirements listed on page 52. For the degree of Bachelor of Arts with a major in mathematics, a total of 120 units and 120 honor points is required. Of these 120 units, a minimum of 20 must be selected from the upper division curriculum of the Department of Mathematics. All programs of study must be approved by the Chairman of the Department.

Preparation for the Major. Competence in the following subjects, or their equivalents, is essential for successful upper division study: high school algebra and geometry; trigonometry; Mathematics 3A–3B–4A–4B; 8, 12; one year of college physics.

Specific Scholarship and Course Requirements for the Major. A minimum of 20 units of upper division work in mathematics, and an average grade of at least C in all required courses are necessary for the major.

All students majoring in mathematics must take the following courses:

	Units
Mathematics 111. Introduction to Higher Algebra	3
Mathematics 118. Advanced Calculus	3
Mathematics 119. Differential Equations	3

To complete the required minimum of 20 units, the student may elect the following courses, according to his interests:

From the field of *applied mathematics* (recommended to students who expect to pursue a career requiring the applications of mathematics, or who wish to do graduate work in this field):

Mathematics 105. Numerical Analysis	3
Mathematics 121. Vector Analysis	3
Mathematics 122. Introduction to Complex Functions	3
Mathematics 124. Mathematics for Engineers and Physicists	3
Mathematics 190. Mathematics Seminar	1–4
Mathematics 199. Special Problems in Mathematics	1–3

From the field of *pure mathematics* (recommended to students who plan to do graduate work in mathematics, or who expect to teach mathematics):

Mathematics 109. Fundamental Concepts of Algebra	3
Mathematics 112. Introduction to Higher Geometry	3
Mathematics 113. Fundamental Concepts of Geometry	3
Mathematics 115. Elementary Theory of Numbers	3
Mathematics 125. Introduction to Mathematical Logic	3
Mathematics 190. Mathematics Seminar	1–4
Mathematics 199. Special Problems in Mathematics	1–3

Requirements for the Minor. High school algebra, plane geometry, and trigonometry are required for admission to a minor in mathematics. Mathematics C is recommended for students with deficiencies in trigonometry. Students must

maintain an average grade of not less than C in all courses offered as part of the minor in mathematics.

The minimum number of units for a minor in mathematics is 18, at least 6 units of which must be in upper division work.

Lower Division Courses

C. Trigonometry. (3) I, II. The Staff
Definition of trigonometric functions. Fundamental identities. Addition formulas and identities based upon them. Solution of oblique triangles. Trigonometric equations. Inverse trigonometric functions. Right spherical triangles.

1A. Mathematical Analysis. (4) I, II. The Staff
Prerequisite: high school algebra.
An introductory course in unified mathematics, including a review of high school algebra, trigonometry, and analytic geometry. This course is recommended for students with deficient background in mathematics, but who wish to prepare for Mathematics 3B.

2. Mathematics of Finance. (3) I, II. The Staff
Prerequisite: $1\frac{1}{2}$ years of high school algebra, or approval of the instructor.
A development of theory and applications of simple and compound interest, discount, annuities, stocks, bonds, depreciation, amortization, insurance, pensions.

3A. Analytic Geometry. (3) I, II. The Staff
Prerequisite: trigonometry.
Properties of the straight line, circle, conic sections, equations of first and second degree, transformation of coördinates, parametric equations, polar and cylindrical coördinates, introduction to analytic geometry of three dimensions.

3B. Calculus, First Course. (3) I, II. The Staff
Prerequisite: course 1A or 3A.
Continuation of 3A. Functions, limits, continuity; derivatives, differentiation of elementary functions; applications; introduction to integration.

4A. Calculus, Second Course. (3) I, II. The Staff
Prerequisite: course 3B.
Continuation of Mathematics 3B. Further applications of differentiation. Systematic integration, applications; indeterminate forms.

4B. Calculus, Third Course. (3) I, II. The Staff
Prerequisite: course 4A.
Continuation of course 4A. Infinite series, Taylor's theorem; introduction to differential equations; hyperbolic functions; solid analytic geometry; partial differentiation; multiple integrals.

***5A–5B. Surveying.** (3–3) Yr. The Staff
Prerequisite: trigonometry.
Theory and practice of the use of levels, transits, and plane tables; mapping, contours, time determinations, triangulation.

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* Not to be given, 1949–1950.

8. College Algebra. (3) I. The Staff
Prerequisite: 1½ years of high school algebra, one-half year of trigonometry; or course 1A.
Binomial theorem, exponential equations, progressions, complex numbers, elementary theory of equations, inequalities, determinants.

9A. General Astronomy, First Course. (3) I. ———
General astronomy, with emphasis on the solar system. Occasional evening periods of observation. Two hours of lecture and three hours of laboratory weekly.

***9B. General Astronomy, Second Course.** (3) II. ———
Prerequisite: course 9A.
General astronomy. The galaxy, extra-galactic systems. Stellar astronomy. Three hours of lecture weekly. Occasional evening periods of observation will supplement lectures.

10. Introductory College Mathematics. (3) I, II. The Staff
Prerequisite: one year high school algebra.
Review of the basic algebraic principles; concept of the variable and function; study of the linear, quadratic, power, exponential, logarithmic functions; application of functions to data from the natural and social sciences; introductory concepts of statistical treatment of data, arithmetic mean, standard deviation, coefficient of correlation, normal probability function.

12. Introduction to Probability and Statistics. (3) II. The Staff
Prerequisite: course 1B or 3B.
Introductory topics of probability and statistics for the development of the treatment of experimental data.

Upper Division Courses

***105. Numerical Analysis.** (3) I. ———
Prerequisite: courses 4B, 12.
Numerical procedures for interpolation, differentiation, integration, solving of differential equations in applied problems, use of the calculating machines.

109. Fundamental Concepts of Algebra. (3) I. Mr. Walton
Prerequisite: course 8 and 4A.
An introductory study of the nature of mathematical deduction with emphasis on the number systems used in elementary algebra.

111. Introductory Higher Algebra. (3) II. Mr. Walton
Prerequisite: course 8 and either 4B or 1D.
Linear algebra, vector spaces, linear dependence, matrix algebra, systems of linear equations, determinants.

***112. Introductory Higher Geometry.** (3) I. ———
Prerequisite: course 8; recommended: course 111.
Projective properties, homogeneous and projective coördinates, cross ratio, one and two dimensional projective geometry.

* Not to be given, 1949–1950.

113. **Fundamental Concepts of Geometry.** (3) II. ———
Prerequisite: course 8 and 4A.
A study of the foundations of geometry for students planning to teach mathematics. Introduction to non-Euclidean geometry.

115. **Elementary Theory of Numbers.** (3) I. ———
Prerequisite: course 8.
Factorization; congruences; primitive roots; residues; Pell's equation; quadratic reciprocity.

118. **Advanced Calculus.** (3) II. Mr. LASS
Prerequisite: course 119.
Selection from the following topics: continuity, limiting process, real number system, ordinary and partial derivatives, Taylor's expansion for functions of many variable, Riemann integral, line and surface integrals, Fourier series, uniform convergence, improper integrals, calculus of variations.

119. **Differential Equations.** (3) I. Mr. RAUCH
Prerequisite: course 4B.
Solutions of first order differential equations, linear differential equations with constant coefficients. Selections from the following topics: Picard's method for approximating the solutions of nonlinear equations, series solutions, partial differential equations.

121. **Vector Analysis.** (3) I. Mr. LASS
Vector algebra, differential and integral calculus of vectors including line integrals, Gauss', Stokes', Green's theorems; applications to differential geometry, mechanics, electricity, hydrodynamics, theoretical physics; a brief introduction into tensor analysis.

122. **Introduction to Complex Functions.** (3) II. Mr. RAUCH
Prerequisite: course 118.
Analytic functions, integration in the complex plane, analytic continuation, conformal mapping. Introduction to applications in the engineering field.

*124. **Mathematics for Engineers and Physicists.** (3) I. Mr. RAUCH
Prerequisite: course 119.
Complex numbers, vectors, divergence, curl, Gauss's theorem, Stokes' theorem; Gamma, Legendre, and Bessel functions; partial differential equations; applications.

125. **Introduction to Mathematical Logic.** (3) II. Mr. WALTON
Prerequisite: course 109 or 113, or consent of the instructor.
Sentential and predicate calculus with applications to the metamathematics or formalized deductive theories.

190. **Mathematics Seminar.** (1–4) II. The STAFF
Prerequisite: consent of the instructor.
Lectures and discussions concerning the applications of mathematics to various scientific fields, with emphasis on the place of mathematics in the development of science.

199. **Special Problems in Mathematics.** (1–3) I, II. The STAFF

* Not to be given, 1949–1950.

MILITARY SCIENCE AND TACTICS

RICHARD G. MCKEE, B.S., Colonel, Infantry, Professor of Military Science and Tactics.

CHARLES F. MUDGETT, B.S., Lieutenant Colonel, Infantry, Associate Professor of Military Science and Tactics.

JAMES D. KIDDER, B.S., Captain, Infantry, Assistant Professor of Military Science and Tactics.

Mission. The mission of the Senior Division of ROTC is to produce junior officers who have the qualities and attributes essential to their progressive and continued development as officers in a component of the Army of the United States. The major mission is the training of officers to serve with the Reserve Components of the Army of the United States, i.e., the Organized Reserve Corps and the National Guard. In addition, the Senior ROTC will provide the principal source of procurement of junior officers for the Regular Army through selection of a required number of distinguished military graduates of Senior ROTC units for direct Regular Army appointment, and through extended active-duty tours of volunteer officers from which will be selected additional personnel for Regular Army appointments.

Arms, Equipment and Uniforms. The United States furnishes arms, equipment, uniforms, and textbooks for the use of regularly enrolled students in this department. This property remains the property of the United States Government and must be returned at the end of the school year.

Basic Course. The purpose of this course is to qualify the student as a leader whether in peace or in war, to help prepare him to discharge his duties as a citizen and to awaken in him an appreciation of the obligations of citizenship.

The basic course is prescribed for all first-year and second-year undergraduate male students who are citizens of the United States, able-bodied, between the ages of fourteen and twenty-two years at the time of admission to the University. A first-year or second-year student claiming exemption because of noncitizenship, physical disability, age, or service in the armed forces of the United States, will present a petition on the prescribed form for such exemption. Pending action on his petition the student will enroll in and enter the course prescribed for his year.

A student who has had previous military training or service will receive such credit toward advanced standing in the ROTC as the Provost of the College and the Professor of Military Science and Tactics may jointly determine.

A student who has received training in a junior division ROTC unit, equivalent training at a government recognized school, or senior division ROTC training at another institution may be granted advanced basic course standing, based on the previous ROTC training completed. Satisfactory completion of the junior ROTC program will entitle the student to credit for the first year of senior ROTC. It is essential that each entering student, with previous ROTC training as indicated above, who desires to receive advance ROTC credit should, prior to his enrollment, secure from the high school or other institution concerned a transcript of his previous ROTC training. This transcript should be presented by the student for proper evaluation at the time he enrolls in military science and tactics.

If a student subject to this requirement, without authority, fails to appear for work in the course, his neglect will be reported after a reasonable time to the Registrar, who with the approval of the Provost will notify the student

that he is dismissed from the University. The Registrar will then inform the dean of the student's college or other officer in charge of the student's program of his dismissal. Upon the recommendation of the professor in charge of the work and with the approval of the Provost, the Registrar is authorized to reinstate the student and will notify the dean of the student's college (or other officer in charge of the student's study list) of such reinstatement.

1A–1B. **Basic Course.** (1½–1½) Yr. The Staff

Two hours of theoretical instruction and one hour of field instruction each week. Instruction and training in the basic theoretical and practical subjects necessary to enable the student to operate as a soldier in the field.

Qualifications for enrollment: acceptance by the Professor of Military Science and Tactics as a member of the Senior ROTC for those students without previous military training.

2A–2B. **Basic Course.** (1½–1½) Yr. The Staff

Prerequisite: course 1A and 1B, previous ROTC or military training equivalent.

Two hours of theoretical instruction and one hour of field instruction each week.

Instruction to the student to continue and preserve the training given in 1A–1B, and to instill a theoretical and practical knowledge of military tactics as applied to the individual and small groups. The practical application of the relation of this instruction to combat is illustrated.

Advanced Course

The purpose of this course is to produce college-trained junior reserve officers to meet the needs of the Army during the postwar period and to preserve and expand the Reserve Officers' Training Corps organization in anticipation of postwar reserve officer requirements. In addition, the Senior ROTC will provide the principal source of procurement of junior officers for the Regular Army through selection of a required number of distinguished military graduates of Senior ROTC units for direct Regular Army appointment, and through extended active-duty tours of volunteer officers from which will be selected additional personnel for Regular Army appointments.

For those advanced-course students who wish to obtain a commission in the Regular Army as Distinguished Military Graduates, the following requirements are listed: A student must possess outstanding qualities of military leadership, high moral character, and definite aptitude for the military service; distinguish himself either academically or by demonstrated leadership through his accomplishments while participating in recognized campus activities; complete successfully all military science subjects or their equivalents, finishing in the upper third of the graduating military science class; and complete the full four-year curriculum at the College and obtain a degree.

Any major is acceptable, but certain ones are considered more useful for a future career in the Army. Those majors especially recommended to students wishing a Regular Army commission are speech, economics, political science, sociology, mathematics, chemistry, physics, psychology, and physical education.

Those students who do not qualify as Distinguished Military Graduates because they are not in the upper third of the graduating military science class, may compete for a Regular Army commission by taking the "Competitive Tour of Duty" for one year following graduation from the College.

The advanced course is offered for regularly enrolled students who are graduates of the basic course, physically fit, and between the ages of 16 to 26 years

at the time of admission to the advanced course. In addition, advanced-course students must have at least two academic years to graduate or a like period to complete all academic work for an advanced degree. Advanced-course students receive from the government commutation of subsistence equivalent to the value of the Army ration (about $28 per month) in addition to uniforms, arms, equipment, and textbooks.

102. ROTC Summer Camp. (3)

Advanced-course students are required to attend a course of summer camp training for six weeks during the summer vacation period normally following the student's completion of the first year of the advanced course. The United States furnishes uniforms, equipment, transportation, and subsistence and pays the student while at camp the rate of pay of an Army private (now $75 per month) plus 5 cents per mile to and from camp. Three units of credit are granted for successful completion of this camp.

Formally enrolled members of the advanced course are deferred from induction, training, and service under the Selective Training and Service Act of 1948, as amended, but must register.

103A–103B. Advanced Course, Senior ROTC (Infantry). (4–4) Yr.

Prerequisite: courses 1A, 1B, 2A, 2B. The STAFF

Instruction to continue and preserve the training given in the elementary course and/or service in the armed forces; instruction in leadership and the duties of company grade officers of infantry.

104A–104B. Advanced Course, Senior ROTC (Infantry). (4–4) Yr.

Prerequisite: course 103A–103B. The STAFF

Continuation of the instruction given in 103A–103B with a view to qualifying the student for a commission in the Officers' Reserve Corps, United States Army, or a commission in the Regular Army.

Acceptance by the student of the monetary allowances described above will make the completion of the advanced course a prerequisite to graduation from the University.

UTILIZATION OF GRADUATES OF SCIENTIFIC AND TECHNICAL COURSES

It is not practicable to maintain units of all the many branches at most colleges and universities. However, there will be students in scientific and technical courses whose services will be needed and who will wish to be commissioned in branches not represented by units on their campuses. The War Department will make provisions for such advanced students to attend an ROTC camp of the appropriate branch and will tender such students, if otherwise qualified, a commission in the appropriate branch within quota limitations.

SELECTIVE SERVICE ACT OF 1948

Within such number as may be prescribed by the Secretary of Defense any person who, (A) on or after the effective date of this title is selected for enrollment or continuance in the senior division, Reserve Officers' Training Corps, and (B) agrees, in writing, to accept a commission if tendered and to serve, subject to call by the Secretary of the Army, not less than two years on active duty after receipt of the commission, shall be deferred from induction for training and service under this title until after completion or termination of the course of instruction and so long as he continues in a regular or reserve status upon being commissioned, but shall not be exempt from registration. Enrollment in ROTC does not in itself exempt or defer the student from induction.

MUSIC

HELEN M. BARNETT, M.A., Associate Professor of Music.
LLOYD BROWNING, B.Mus., Assistant Professor of Music.
WALTER BUCHANAN, Ph.D., Assistant Professor of Music.
VAN A. CHRISTY, Ph.D., Professor of Music.
MAURICE E. FAULKNER, M.A., Associate Professor of Music.
H. KLYNE HEADLEY, M.Mus., Associate Professor of Music.
EDWIN F. JONES, M.Mus., Assistant Professor of Music.
CLAYTON H. WILSON, M.Mus., Assistant Professor of Music.
FRANCES WISHARD, B.Mus., Instructor in Music.

The Major.—The following majors lead to the degree of Bachelor of Arts in 1949–1950. Conference is required with the Chairman of the Department of Music before beginning these majors.

(1) The bachelor's degree without teaching credential. A liberal arts music major is recommended for those who wish to pursue a specialized type of work and are not interested in a teaching credential. Three types of curricula are offered: (a) general liberal arts, (b) theory and composition, and (c) applied music.

(2) A major in public school music, leading to a special secondary credential. This credential authorizes the holder to teach all vocal and instrumental music in the elementary and secondary schools of California.

(3) A major in music, leading to a special secondary credential in (a) instrumental music, (b) vocal music, or (c) piano music. This credential authorizes the holder to teach theoretical music, music appreciation, dictation, music reading, and the special branch or branches named in the credential.

(4) A major in music and a major in elementary education. Teaching credentials in these fields authorize the holder to teach vocal and instrumental music in either the elementary or secondary schools, as well as all elementary subjects throughout the eight grades.

(5) A major in music and a major in junior high school education. Teaching credentials in these fields authorize the holder to teach music throughout the elementary and secondary schools, as well as other subjects in grades seven, eight, or nine in any elementary, junior high, or high school.

(6) A major in music and a major in early childhood education. Teaching credentials in these fields authorize the holder to teach music throughout the elementary and secondary schools, as well as other subjects in kindergarten and the first three grades.

Requirements for the Major: Students must have completed the following lower division courses or their equivalents in preparation for the major in music: Music 2A–2B and 30A–30B. Entrance and placement examinations in music are given to all new majors before registration. Candidates for the bachelor's degree with a major in music must fulfill all the requirements listed on page 52. The average of all grades received in music courses, including directed teaching for those desiring a credential, must not fall below C.

Students should consult the chairman of the department before registering for the major in music. Transfers from other institutions are required to complete at least two semesters' work in the Department of Music.

All students desiring to enroll in any music course (music history and appreciation, music activities excepted) must first pass a standard music test in

native capacity and a test in ability to carry a tune. These music tests are scheduled at the beginning of each semester and must be taken at that time.

Students are required to develop performance ability, vocally or instrumentally, and to participate in student recitals. Auditions are held annually, during which the student's performance in the field of his major interest is tested.

All students with a major in music must engage in some music acitivity throughout the course, either instrumental or vocal.

Master teachers (accredited by the Department of Music) are available for private instrumental and vocal study at a nominal fee.

Student Teaching. Before a student can register for student teaching, he must have maintained an average grade of at least C in all work undertaken. At the conclusion of any semester, should his average fall below grade C he may not register for student teaching until the C average is reëstablished. No student may be graduated without at least a C average in student teaching.

Proficiency Tests in Speech and Statutory Subjects. Students earning teaching credentials in this department must show proof of proficiency in the fundamental school subjects such as arithmetic, reading, language, penmanship, and spelling. Also see the notice of the speech proficiency test on page 51. Students should plan to take all of these tests prior to their entrance to upper division, and at least by the first semester of their junior year. Directed teaching cannot be undertaken until these tests have been passed.

Advanced Credit. Students able to satisfy the requirements of any music course listed in the bulletin, may petition for examinations in such courses. Those who make satisfactory grades will be allowed to substitute electives for a part of the required courses.

Curricula for the Major

The following are four-year programs leading to the bachelor's degree with a teaching credential. Courses may in some instances be varied to meet the needs and interests of students.

Public School Music

Lower Division

	Units
Music 1B–1C. Musicianship	4
Music 3A–3B. Harmony	6
Music 6A–B–C–D. Voice	4
Music 12A. Counterpoint	2
Music 20A–B–C–D. Instruments	8
Music 30C–D–E–F. Piano and music activities	4

Upper Division

Music 103. Harmony	3
Music 104A–104B–104C. History of Music	6
Music 106A–106B. Advanced Voice (or Music 140A–140B. Advanced Instruments)	2
Music 114. Techniques of Radio Broadcasting	1
Music 120. Instrumental Conducting	2
Music 121. Orchestration	2
Music 160. Form and Analysis and music activities	2

Education courses for credential: Education 57, 147, 170, ME 190, MS 190, MV 190, MI 190, M 192, Psychology 110.

Instrumental Music

Lower Division

	Units
Music 1B–1C. Musicianship	4
Music 3A–3B. Harmony	6
Music 6A–6B. Voice	2
Music 12A. Counterpoint	2
Music 20A–B–C–D. Instruments	8
Music 30C–D. Piano	2
Music 40A–40B. Intermediate Instruments and music activities	2

Upper Division

Music 103. Harmony	3
Music 104A–104B–104C. History of Music	6
Music 140A–B–C–D. Advanced Instruments	4
Music 114. Techniques of Radio Broadcasting	1
Music 120. Instrumental Conducting	2
Music 121. Orchestration	2
Music 160. Form and Analysis and music activities	2

Education courses for credential: Same as listed above for Public School Music.

Piano Music

Lower Division

Music 1B–1C. Musicianship	4
Music 3A–3B. Harmony	6
Music 6A–6B. Voice	2
Music 6C–6D. Voice (or 2 units chosen from 20A–B–C–D, 40A–40B, Intermediate Instruments)	2
Music 12A. Counterpoint	2
Music 20A–B–C–D. Instruments (choice of two)	4
Music 30C–D–E–F. Piano and music activities	4

Upper Division

Music 103. Harmony	3
Music 104A–104B–104C. History of Music	6
Music 106A–106B. Advanced Voice (or 2 units chosen from 20A–B–C–D, or 140A–140B, Advanced Instruments)	2
Music 114. Techniques of Radio Broadcasting	1
Music 120. Instrumental Conducting	2
Music 121. Orchestration (or 116, Choral Composition)	2
Music 130A–B–C–D. Advanced Piano	4
Music 160. Form and Analysis and music activities	2

Education courses for credential: Same as listed above for Public School Music, except that Music 125, Choral Conducting, may be substituted for MI 190 if desired.

Vocal Music

Lower Division

	Units
Music 1B–1C. Musicianship	4
Music 3A–3B. Harmony	6
Music 6A–B–C–D. Voice	4
Music 12A. Counterpoint	2
Music 20A–B–C–D. Instruments (choice of two)	4
Music 30C–D–E–F. Piano and music activities	4

Upper Division

Music 103. Harmony	3
Music 104A–104B–104C. History of Music	6
Music 106A–B–C–D. Advanced Voice	4
Music 114. Techniques of Radio Broadcasting	1
Music 116. Choral Composition	3
Music 120. Instrumental Conducting	2
Music 121. Orchestration	2
Music 125. Choral Conducting	2
Music 160. Form and Analysis and music activities	2

Education courses for credential: Same as listed above for Public School Music, except that MI 190 may be omitted.

LIBERAL ARTS MUSIC MAJORS

These curricula lead to the bachelor's degree without a teaching credential. The major consists of 40 required units in music. Students also may select 9 additional units in music from their electives. Subject matter is adjusted to meet the interest and needs of the student. Courses in education leading to a teaching credential are omitted. A minor in foreign language, English, speech, social science, natural science, or art is recommended.

*(A) General Liberal Arts Music Major. A balanced program in music history, applied music, and theory and composition.

*(B) Theory and Composition. Specialization in theory and composition, with music history and applied music secondary studies. A minimum of 26 units in theory and composition required.

*(C) Applied Music. Specialization in applied music, with music history, and theory and composition secondary studies. A minimum of 23 units in applied music, including at least 14 units credit for private and class lessons in the major field of performance, adequate repertoire, and a senior recital are required.

Curricula for the Minor

Requirements for the Minor. The requirements for the various minors in the Department of Music are 18 units, of which at least 6 must be in upper division courses within the same field.

* Consult the Chairman of the Department of Music for details of curriculum.

Public School Music

Prerequisite: ability to sing a simple song.

Lower Division

	Units
Music 1A. Musicianship	2
Music 5A. Music History and Appreciation	2
Music 6A–6B. Voice	2
Music 30A–B–C–D. Piano	4

Upper Division

Music 124. Fundamentals of Conducting	2
Music activities	4
Education ME 190. Elementary Music Education	2

Early Childhood Education Music

Prerequisite: ability to play simple songs and marches, and to sing in tune.

Lower Division

Music 1A. Musicianship	2
Music 5A. Music History and Appreciation	2
Music 6A–6B. Voice	2
Music 30A–B–C–D. Piano	4

Upper Division

Music 113A–113B. Music for Plays, Festivals, and Pageants	2
Music activities	4
Education MEC 190. Music for Early Childhood Education	2

Orchestra and Band Instrument Music

Prerequisite: ability to play a string or wind instrument.

Lower Division

Music 1A. Musicianship	2
Music activities	2
6 units chosen from Music 20A–B–C–D. Instruments	6

Upper Division

Music 120. Instrumental Conducting	2
Music 140A–140B. Advanced Instruments	2
Instrumental activities	4

Liberal Arts Music

Lower Division

Music 1A. Musicianship	2

7 units elected from lower division courses in music.

Upper Division

9 units elected from upper division courses in music.

Lower Division Courses

X(ECE). Piano. (0 or 1) I, II. Miss Wishard
A credit course for early childhood education majors who are not qualified to meet entrance requirements for Music 30A (ECE). (Note.—Credit can be used as an elective, but will not count toward music requirements for the major or minor.) Two class hours.

1A. Musicianship I. (2) I, II. Mr. Buchanan
Key signature. Solfege of major and minor scales and triads. Sight singing in major with movable *do*. Rhythmic and melodic dictation, two measures. Treble, bass, and C clefs. Harmonic dictation involving I, IV, and V_7. Intervals. Two class hours.

1B. Musicianship II. (2) I, II. Mr. Buchanan
Continuation of 1A. Singing in minor with *la* as the keynote. All dictation in four measure phrase length. Rhythmic dictation. Melodic dictation in major and minor. Harmonies involving II_6 and I^6_4. Two class hours.

1C. Musicianship III. (2) I, II. Mr. Buchanan
Continuation of 1A and 1B. Singing by syllable in bass and C clefs. More difficult rhythmic patterns. Secondary seventh chords. Altered chords by syllable. Altered chords with enharmonic changes in spelling. Two class hours.

2A–2B. Music Theory I–II. (3–3) I, II. The Staff
Music fundamentals, sight singing, ear training, introductory harmony and keyboard harmony.

3A–3B. Harmony I–II. (3–3) Yr. Mr. Headley
Prerequisite: courses 2A–2B, and 30A or equivalent.
Intervals in scale relation, chord structure; cadences, four-part harmonization of melodies by section and phrase; by-tones, simple treatment of dominant, subdominant, supertonic, submediant, and mediant harmonies. Rhythmic principles governing harmonization. Keyboard practice, creative work.

5A–5B. Music History and Appreciation. (2–2) I, II. Mr. Wilson
Designed especially to meet the needs of students desiring elementary cultural courses in music.

6A–6B. Voice I–II. (1–1) I, II. The Staff
Prerequisite: ability to carry a tune and course 1A.
Principles of voice production, including posture, breath control, vowel formation, resonance, diction, and legato. Ensemble and individual singing of simple songs and exercises in English and Italian. Two class hours.

6C–6D. Voice III–IV. (1–1) I, II. The Staff
Continuation of 6A–6B. Two class hours.

8A–B–C–D. Men's and Women's Glee Clubs. (1–1–1–1) I, II.
Mr. Buchanan, Mrs. Barnett
A study of the best choral literature. Accompanied and *a cappella* experience. Public appearances and radio programs. Open to all college students, after preliminary examination, upon consent of the instructor. Three laboratory periods.

9A–B–C–D. **Orchestra.** (1–1–1–1) I, II. Mr. Jones, Mr. Faulkner
The study and performance of the standard orchestral and symphonic music. Public appearances include a formal concert each semester. Open, with the consent of the instructor, to all students who have had experience in playing an orchestral instrument. Three laboratory periods.

10A–B–C–D. **Band.** (1–1–1–1) I, II. Mr. Faulkner, Mr. Wilson
The study and performance of the standard band repertoire. Public appearances at football games, rallies, and concerts. Open, with the consent of the instructor, to all students who have had experience in playing a band instrument. Two class hours.

12A–12B. **Counterpoint.** (2–2) Yr. Mr. Headley
Prerequisite: courses 2A–2B.
12A. Sixteenth-century counterpoint of Lasso, Palestrina, and others.
12B. Study of Bach and Palestrina in preparation for the writing of canons and fugues.

18A–B–C–D. **A Cappella Choir.** (1–1–1–1) I, II. Mr. Christy
The study and performance of standard classical polyphonic and modern choral and *a cappella* music. Public performances, concert tours, and radio performances. Open, after preliminary tryout, by permission of the instructor, to students who have had choral experience. Three laboratory periods.

20A. **Percussion.** (2) I. Mr. Faulkner
Technical aspects of the various percussion instruments, with special emphasis upon accuracy of rhythm and elementary drumming. Three laboratory periods.

20B. **Brass.** (2) I. Mr. Faulkner
Technical problems involved in the playing of the brass instruments. Performing capacity is developed upon one instrument and playing experience is given upon others. One ensemble period is required each week in addition to the classwork. Three laboratory periods.

20C. **Woodwinds.** (2) II. Mr. Wilson
Same as 20B, but for woodwind instruments.

20D. **Strings.** (2) I, II. Mr. Jones
Same as 20B, but for string instruments.

23A–B–C–D. **String Ensemble.** (1–1–1–1) I, II. Mr. Jones
The study and performance of standard compositions and arrangements for larger string ensemble. Open, after examination, to instrumental players of satisfactory technique, proficiency, and musical knowledge. Two class hours.

26A–B–C–D. **Chamber Music.** (1–1–1–1) I, II. Mr. Jones
The study and performance of standard compositions and arrangements for string trio, quartet, quintet, etc. Open, after examination, to instrumental players of satisfactory technical proficiency and musical knowledge. Two class hours.

27A–B–C–D. **Brass Choir.** (1–1–1–1) I, II. Mr. Faulkner
The study and performance of standard compositions and arrangements for brass ensemble. Open to proficient brass instrumentalists. Three laboratory periods.

28A–B–C–D. **Woodwind Ensemble.** (1–1–1–1) I, II. Mr. Wilson
Same as 27A–B–C–D, but for woodwind ensemble. Three laboratory periods.

29A–B–C–D. **Small Vocal Ensemble.** (1–1–1–1) I, II. The Staff
Study and performance of musical literature suited to small groups. Men's quartet, women's double quartet, and mixed madrigal group. Frequent public appearances and opportunity for radio programs. Two class hours.

30A–B–C–D–E–F. **Piano I–II–III–IV–V–VI.** (1–1–1–1–1–1) I, II.
Mr. Browning, Miss Wishard
Classwork in piano, stressing the fundamental principles of correct and intelligent playing. Provision for development according to individual needs. Upon completion of Piano IV, students are expected to play, readily and accurately, accompaniments of a grade of difficulty encountered in public school assembly singing. Two class hours.

30A–B–C–D **(ECE). Piano I–II–III–IV.** (1–1–1–1) I, II. Miss Wishard
For early childhood education majors, with special emphasis on the needs of the teacher.
Admission is by examination. Students in early childhood education who fail to meet the entrance requirements for course 30A (ECE) must immediately enroll in course X(E.C.E.). Two class hours.

40A–B–C–D. **Intermediate Instruments.** (1–1–1–1) I, II. The Staff
For advanced students. Class lessons and individual instruction. Accredited master teachers are available for private study upon the musical instrument at a nominal fee. Two class hours.

Upper Division Courses

103. **Harmony III.** (3) Yr. Mr. Headley
Continuation of 3A–3B. Nonchordal effects, chromatic harmonies, and simple counterpoint. Extensive analysis of music of the masters. Creative work.

104A–B–C. **History of Music.** (2–2–2) I, II. Mr. Wilson
104A is open to the general student who can meet the necessary musical background demands. A combination lecture and laboratory course designed to present man's cultural heritage in music from early civilization to the present day with an emphasis on relevant style concepts and familiarity with symphonic literature. Three class hours.

106A–B–C–D. **Advanced Voice.** (1–1–1–1) I, II. The Staff
Continued development of breath control, tone production, and technique. Study of songs in foreign languages. Interpretation of the art song, opera, and the oratorio. Students appear in recital. Two class hours.

108A–B–C–D. **Men's and Women's Glee Club.** (1–1–1–1) I, II.
Continuation of 8A–B–C–D. Mr. Buchanan, Mrs. Barnett

109A–B–C–D. **Orchestra.** (1–1–1–1) I, II. Mr. Jones, Mr. Faulkner
Continuation of 9A–B–C–D.

110A–B–C–D. **Band.** (1–1–1–1) I, II. Mr. Faulkner
Continuation of 10A–B–C–D.

113A–113B. **Music for Plays, Festivals, and Pageants.** (1–1) Yr.
Miss VanDeman
Develops skill in guidance of children's creative music experiences, for a wide variety of dramatizations. Original music will be composed for various activities and interests. Class closely integrated with Education 162A–162B. Two class hours.

114. **Techniques of Radio Broadcasting, Recording, and Audio-Visual Aids in Music.** (1) II. Mr. Buchanan
Prerequisite: Education 147 or equivalent.
Projects in writing and production of radio scripts for dramatized music performances. Special microphone and recording techniques for large choral and instrumental groups. Motion pictures, projection slides, recordings and audio-visual devices used specifically in music education.

116. **Choral Composition I.** (3) I. The Staff
Prerequisite: Harmony IV.
Vocal arrangement and composition in the short forms and introduction to the longer forms.

117. **Advanced Composition.** (2) II. Mr. Headley
Composition in the larger forms including variation, rondo, chaconne, passacaglia, and sonata allegro.

118A–B–C–D. **A Cappella Choir.** (1–1–1–1) I, II. Mr. Christy
Continuation of 18A–B–C–D.

120. **Instrumental Conducting.** (2) II. Mr. Faulkner, Mr. Jones
Prerequisite: course 124 or Education MV 190.
The history of the art of conducting, time-beating, and scorereading. Technique of the baton. Actual experience in conducting. Three class hours.

121. **Orchestration.** (2) I. Mr. Faulkner, Mr. Jones
Tone, range, technical possibilities, and transposition of all orchestral and band instruments. Arrangements of standard compositions for strings, brass, and woodwinds, and the orchestration of original work.

123A–B–C–D. **String Ensemble.** (1–1–1–1) I, II. Mr. Jones
The study and performance of standard compositions and arrangements for larger string ensemble. Open after examination to instrumental players of satisfactory technique, proficiency, and musical knowledge.

124. **Fundamentals of Conducting.** (2) I, II. Mr. Christy
Elementary techniques for conducting both choral and instrumental music; practice in conducting easy choral music. Two class hours.

125. **Choral Conducting.** (2) II. Mr. Christy
Prerequisite: course 124 or Education MV 190.
Practical methods in the technique of choral conducting and in organizing and maintaining choral groups. College choral groups are conducted in 4-8 part literature. Three class hours.

126A–B–C–D. **Chamber Music.** (1–1–1–1) I, II. Mr. Jones
Continuation of 26A–B–C–D.

127A–B–C–D. **Brass Choir.** (1–1–1–1) I, II. Mr. Faulkner
Continuation of 27A–B–C–D.

128A–B–C–D. **Woodwind Ensemble.** (1–1–1–1) I, II. Mr. Wilson
Continuation of 28A–B–C–D.

129A–B–C–D. **Small Vocal Ensemble.** (1–1–1–1). I, II. The Staff
Continuation of 29A–B–C–D.

130A–B–C–D. **Advanced Piano.** (1–1–1–1) I, II. Mr. Browning
Continuation of 30C–D–E–F, with emphasis on solo playing and accompaniments of a more difficult grade.

132A–132B. **Piano Accompanying.** (1–1) Yr. The Staff
Playing accompaniments under supervision in the public schools or in vocal or instrumental classes at the College. May be counted for credit in music activity, upon approval of the Chairman of the Department of Music. Five laboratory periods.

133A–133B. **Piano Ensemble.** (1–1) Yr. Mr. Browning
For advanced students. Four- and eight-hand piano compositions and transcriptions by classic, romantic, and modern composers, culminating in a recital each semester. May be counted as a music activity. Two laboratory periods.

140A–B–C–D. **Advanced Instruments.** (1–1–1–1) I, II. The Staff
Continuation of 40A–B–C–D.

160A–160B. **Form and Analysis.** (2) I, II. Miss Wishard
Prerequisite for 160A: course 3A–3B.
Analysis of the simple structural elements and some of the larger forms. Material used is largely from classic and romantic schools.

199. **Special Studies in Music.** (1–3) I, II. The Staff

Related Courses in Other Departments

Education MI 190. Method of Teaching Instrumental Music. (2) II.

Education MEC 190. Early Childhood Music Education. (2) I.

Education ME 190. Elementary Music Education. (2) I.

Education MS 190. Secondary Music Education. (2) II.

Education MV 190. Methods of Teaching Vocal Music. (2) I.

Education M 192. Student Teaching in Music. (1–4) I, II.

Education P 190. Teaching Procedures in Physical Education. (2) I, II.

Physical Education 54. (Music.) Marching Tactics. ($\frac{1}{2}$) I.

Physics 16. Physics of Sound. (3) I, II.

PHYSICAL AND HEALTH EDUCATION

MEN

Ernest N. Carter, A.B., Instructor in Physical Education.
Terry H. Dearborn, A.B., Assistant Professor of Physical Education.
Theodore Harder, M.A., Associate Professor of Physical Education.
William M. Irvine, Assistant in Physical Education.
Mayville S. Kelliher, M.S., Instructor in Physical Education.
Joseph E. Lantagne, Ed.D., Assistant Professor of Physical Education.
Lyle G. Reynolds, M.A., Assistant Professor of Physical Education.
*Stanley L. Williamson, B.S., Associate Professor of Physical Education.
Wilton M. Wilton, M.A., Assistant Professor of Physical Education.

WOMEN

Marian H. Anderson, A.B., Instructor in Physical Education.
Jean Bellinger, M.A., Assistant Professor of Physical Education.
Winifred W. Hodgins, M.A., Associate Professor of Physical Education.
Jean L. Hodgkins, M.A., Assistant Professor of Physical Education.
*Elizebeth L. Sehon, M.A., Associate Professor of Physical Education.
Gladys R. Van Fossen, M.A., Associate Professor of Physical Education.
Patricia H. Whitaker, M.A., Instructor in Physical Education.

Services offered by the Department of Physical and Health Education.

1. A program of physical fitness for all students.
2. Courses in physical education and in health education emphasizing theory and practice in desirable activities and recreational values.
3. Preparation for students who wish to make a profession of physical education, health education, or recreation.
4. Preparation for teaching the fundamentals of physical education on the preschool, kindergarten, elementary, and secondary levels, and for organizing and administering the program of physical education in these fields.
5. Intramural activities and co-recreational sports.
6. Intercollegiate athletic competition.

Requirements for all College Students.

1. A medical examination by the College Physician is required of every student enrolled in the College. Students recommended by the College Physician for modified physical activity will enroll for special individual adaptations classes.
2. For graduation, all students are required to obtain a minimum of 2 units in physical education activities.
3. A student more than twenty-four years of age at the time of admission will be excused from physical education, but recreational courses are recommended.

Requirements for Men. It is recommended that courses 51A–51B and 52A–52B or course 53 be taken each semester of the first and second years for the fulfillment of the requirement for graduation. Courses 60–69, however, may be sub-

* Absent on leave, 1949–1950.

stituted, although they are not necessarily constructed to meet the all-around need of the student.

Requirements for Women. The activity requirements in the lower division depend upon the student's major field of study. The following courses are suggested for students whose major is in one of the three fields listed below.

Early childhood education: Physical Education 26, sections 14, 17A, 18A, and 139.

Elementary education: Physical Education 26, sections 14, 16A, 18A–18B, and 138.

Junior high school: Physical Education 26, sections 2, 5, 16A, and 18B.

It is suggested that all other students undertake one semester each of game activity, rhythmic activity, body mechanics, and an elective course.

The Major. Students must take 40 units (of the 120 required for graduation) in physical and health education courses.

Not more than 30 units of upper division courses in physical and health education taken after entering the upper division will be counted toward graduation.

Students with senior standing at the time of admission to the college by transfer from other institutions, must complete 30 units in residence, 18 of which must be in upper division courses, including at least 12 units of physical education.

Special Requirements. Students desiring to specialize in the field of physical education must be physically sound, mentally alert, and have a high degree of neuromuscular coördination. Candidates for the major or minor are required to demonstrate, before entering the upper division, that they possess a fair degree of skill in the various activities included in the lower division activity classes.

Requirements for the Major.

Men. 35 units in physical education and 8 units in health education as follows:

LOWER DIVISION

	Units
Health Education 1. Personal Health Problems	2
Health Education 2. Standard First Aid	1
Health Education 3. Family Health	2
Physical Education 26, sections 16A, 16B. Elementary and Advanced Folk Dancing	1
Physical Education 51A, 51B, 52A, 52B	2
Physical Education 56. Activities for Gymnasium and Field	2

UPPER DIVISION

Health Education 101. School Health Education	3
Physical Education 101. Kinesiology	3
Physical Education 102. Individual Program Adaptation	3
Physical Education 105. Physiology of Exercise	3
Physical Education 130. Principles of Physical Education	3
Physical Education 131. Organization and Administration of Physical Education	3
Physical Education 140. Community Recreation	3
Physical Education 154. Athletic Injuries and Conditioning	2
Physical Education 170. Technique of Teaching Football	1
Physical Education 171. Technique of Teaching Basketball	1
Physical Education 172. Technique of Teaching Baseball	1

	Units
Physical Education 173. Technique of Teaching Track	1
Physical Education 174. Technique of Teaching Tennis	1
Physical Education 175. Technique of Teaching Swimming	1
Physical Education 176. Technique of Teaching Individual Sports	1
or Physical Education 177. Lifesaving and Water Safety	1
Physical education electives	2
Physical education activity electives	2

Women. 40 units from the following physical education courses:

Lower Division

Physical Education 26. Activity Classes	6
Physical Education 28. Rhythmic Adaptation	2
Physical Education 29. Camp Leadership	1
Physical Education 30. Technique of Teaching Individual Sports	3
Physical Education 35. Rhythmic Form and Analysis	1

Upper Division

Physical Education 101. Kinesiology	3
Physical Education 102. Theory of Individual Program Adaptations	3
Physical Education 105. Physiology of Exercise	3
Physical Education 130. Principles of Physical Education	3
Physical Education 131. Organization and Administration of Physical Education	3
Physical Education 132. Technique of Teaching Team Sports	3
Physical Education 138. Physical Education in the Elementary Schools	2
Physical Education 139. Activities for Early Childhood Education	2
Physical Education 143. Theory and Techniques of Recreational Activities	3
Physical Education 160A. Theory of Dance	2
Physical Education 160B. Theory of Dance	2
Physical Education 165. Theory of Teaching Gymnastics	1

Requirements for the Minor in Physical Education.

Men. 20 units as follows:

Lower Division

Health Education 1. Personal Health Problems	2
Health Education 2. Standard First Aid	1
Physical Education 56. Activities for Gymnasium and Field	2

Upper Division

Physical Education 130. Principles of Physical Education	3
Physical Education 131. Organization and Administration of Physical Education	3
Physical Education 154. Athletic Injuries and Conditioning	2
Selected from the following:	5
Physical Education 170. Technique of Teaching Football	1

	Units
Physical Education 171. Technique of Teaching Basketball	1
Physical Education 172. Technique of Teaching Baseball	1
Physical Education 173. Technique of Track	1
Physical Education 174. Technique of Tennis	1
Physical Education 175. Technique of Swimming	1
Physical Education 176. Technique of Individual Sports	1
Physical Education 177. Lifesaving and Water Safety	1
Physical education activity electives	2

Women. 20 units as follows:

Physical Education 26. Activity Classes	4
Physical Education 28. Rhythmic Adaptation	2
Physical Education 35. Rhythmic Form and Analysis	1
Physical Education 30. Technique of Teaching Individual Sports	3
or Physical Education 132. Technique of Teaching Team Sports	3
Physical Education 130. Principles of Physical Education	3
Physical Education 131. Organization and Administration of Physical Education	3
Physical Education 138. Physical Education in the Elementary Schools	2
or Physical Education 139. Activities for Early Childhood Education	2
Electives in health education	2

Requirements for the Minor in Health Education.

The following courses for men and women, totaling 20 units, complete a minor in health education:

Health Education 1. Personal Health Problems	2
Health Education 2. Standard First Aid	1
Health Education 3. Family Health	2
Health Education 100. Organization and Administration of School Health Education	2
Health Education 101. School Health Education	3
Electives from the following:	2
Health Education 105. Safety Education	2
Health Education 106. Industrial and Occupational Hygiene	2
Health Education 107. Organization and Procedures of Student Health Service	2
Zoölogy 40A. Introductory Animal Physiology	3
Biology 180. Public Health	3
Home Economics 10. Nutrition and Health of the Family	2

Requirements for the Combination Major in Physical Education and Industrial Education. A combination major in physical education and industrial education is offered, leading to special secondary teaching credentials in these

fields. One additional semester at least must be completed in order to receive the second credential. Details may be obtained from the chairman of either department.

Requirements for the Credential. Students may obtain the bachelor's degree with a major in physical education and the special secondary credential in physical education, or they may obtain the bachelor's degree without the credential. The special secondary credential in physical education entitles the holder to teach this subject in the public schools of California.

Men and women seeking the special secondary credential in physical education are required to complete the following courses in education:

	Units
Education 57. Introduction to the Study of Education	3
Education 110. Educational Psychology	3
Education 111. Child Growth and Development	2
Education 119(P.E.). Measurement in Physical Education	2
Education 147. Audio-Visual-Radio Education	1 or 2
Education P 190. Teaching Procedures in Physical Education	2
Education P 192. Student Teaching in Physical Education	2–6

In addition they must pass the college proficiency and speech tests. (See page 51.)

Professional Training in Recreation. The California State Department of Education does not at present offer a credential in recreation. Students wishing to prepare for leadership in this field are advised to obtain the bachelor's degree with major in physical education, arranging in conference with the chairman of this department to emphasize recreational courses included in its offerings, and in those of certain other departments of the College.

Courses Open to Both Men and Women

Physical Education 26, sections 2, 3A–3B, 4*, 5, 6A–6B*, 12, 16A–16B, 17A–17B, 18A–18B, 28, 29, 35, 58*, 63, 64, 66*, 67, 101, 105, 130, 138, 140, 143, 158*, 163, 164, 166*, 167, 177, 178*

Physical Education for Men

Lower Division Courses

51A–51B and 52A–52B. Sports Activities. The Staff

The prescribed course in physical education, recommended for graduation of all men students, in each semester of the first two years. A basic program of physical exercise, activities, and sports, organized to help students improve their physical development and condition, and to gain useful neuromuscular and recreational skills.

51A. Freshman Sports Activities. (½) I. Two meetings weekly, gym and field.

51B. Freshman Sports Activities. (½) II. Two meetings weekly, gym and field.

52A. Sophomore Sports Activities. (½) I. Two meetings weekly, gym and field.

52B. Sophomore Sports Activities. (½) II. Two meetings weekly, gym and field.

* A fee is charged for use of equipment not owned by the College. Direct payment will be made by the student.

53. Individual Adaptations. (½) I, II. The Staff
Individually adjusted programs of activities for men recommended for restricted, remedial, or other special programs by the Department of Physical Education or the College Physician. Fulfills the graduation requirement. Two meetings per week. Gym.

55A. Sports Management. (1) I. The Staff
Instruction and practice in the management of fall and winter sports. One lecture, two laboratory periods.

55B. Sports Management. (1) II. The Staff
Instruction and practice in the management of spring sports. One lecture, two laboratory periods.

56. Activities for Gymnasium and Field. (2) I, II. Mr. Kelliher
Instruction and practice in leadership in gymnasium and field activities, including apparatus work, tumbling and stunts, group games, combatives, marching, sports, and contests. One lecture, two laboratory periods. Gym and field.

58–73. Sports Courses, Elementary. (½) The Staff
Instruction and supervised practice in fundamentals. Two periods per week.

*†‡58. Boating and Sailing. I, II.
60. Gymnastics. I.
61. Cross Country. I.
62. Soccer. I.
63. Badminton. I, II.
64. Tennis. I.
65. Swimming. I.
†*66. Golf. I, II.
†67. Fencing. I, II.
68. Wrestling. I, II.
69. Boxing. I.
70. Football. I.
71. Basketball. I.
72. Baseball. II.
73. Track and Field. II.

80–89. Freshman Intercollegiate Sports. (½) The Staff
Competitive sports open to students eligible to participate in intercollegiate athletics. Five periods per week during the training season.
80. Football. I.
81. Basketball. I, II.
82. Baseball. II.
83. Track. II.
84. Tennis. II.
85. Swimming. II.

Upper Division Courses

101. Kinesiology. (3) I. Mr. Kelliher, Mrs. Hodgins
Prerequisite: Zoölogy 25, 40A–40B.
The study and application of physical structure and muscular movements in various physical education activities. Description and application of certain anatomical concepts and physical laws to joint and muscular action.

102. Individual Program Adaptations. (3) II. Mr. Lantagne
Prerequisite: courses 101, 105, Zoölogy 25, 40A–40B.
Types and significance of the principal divergencies requiring a modified program of physical activity, together with the program adjustments recommended for each.

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* A fee is charged for use of equipment and facilities not owned by the College. Direct payment will be made by the student.
† Courses open to both men and women.
‡ Those who enroll must be able swimmers capable of self-rescue.

105. **Physiology of Exercise.** (3) I. Mr. LANTAGNE
Prerequisite: Zoölogy 25, Physical Education 101.
The neuromuscular mechanism and the metabolic, muscular, circulatory, and respiratory responses in physical exercise, and their integration by means of the nervous system.

130. **Principles of Physical Education.** (3) I. Mr. WILTON
The nature and history of physical education; its place and contributions in the educational program and in the world of today.

131. **Organization and Administration of Physical Education in Secondary Schools.** (3) II. Mr. HARDER
Prerequisite: course 130.

140. **Community Recreation.** (3) I. Mr. HARDER
Fundamentals of community recreation, its objectives, principles, program, procedure, and administration.

141. **Club Activities and Scoutcraft.** (3) I. Mr. CARTER, Mr. KELLIHER
Prerequisite: course 140.
Organization and administration of boys' clubs and their activities. The Boy Scout organization, its objectives and program, and its place in the education of youth. Participation in the various phases of the scouting program. Two lectures and one demonstration.

143. **Theory and Techniques of Recreation.** (3) II. Miss HODGKINS
The study of theory and techniques of recreational leadership, including organization and administration of programs for schools, playgrounds, and communities.

151A. **Theory and Practice of Officiating.** (1) I. Mr. WILTON and STAFF
Prerequisite: varsity squad experience or technique course in each sport.
Analysis and interpretation of the rules of football and basketball; procedure in officiating; practice in officiating.

151B. **Theory and Practice of Officiating.** (1) II. Mr. HARDER, Mr. CARTER
Prerequisite: varsity squad experience or technique course in each sport.
Analysis and interpretation of the rules of baseball and track; procedure in officiating; practice in officiating.

154. **Athletic Injuries and Conditioning.** (2) II. Mr. WILTON
Prerequisite: course 105, Health Education 2.
Methods and procedure in training and conditioning athletes for competition, with emphasis on the prevention and care of athletic injuries. Technique of bandaging, first aid for injuries, physical therapy.

158–169. **Sports Courses, Advanced.** ($\frac{1}{2}$) The STAFF
Advanced instruction and practice in fundamentals and strategy, with opportunity for class and intramural competition. Open to qualified students. Two meetings weekly.

†*‡158. Boating and Sailing. I, II.
160. Gymnastics. I.
161. Cross Country. I.
162. Soccer. I.
163. Badminton. II.
†164. Tennis. I.
165. Swimming. I.
*†166. Golf. I, II.
†167. Fencing. I.
168. Wrestling. I.
169. Boxing. I.

† Courses open to both men and women.
* A fee is charged for use of equipment and facilities not owned by the College. Direct payment will be made by the student.
‡ Enrollees must be able swimmers capable of self-rescue.

170–176. Courses in the Technique of Teaching Sports. (1) The Staff
Prerequisite: squad experience in the sport.
Courses in methods, open to students of physical education, as part of their preparation for teaching and coaching. Each course gives consideration to the history and development of the sport; its hazards and its contribution to the physical education program; qualifications for players and teachers; the training, conditioning, and protection of players; the organization, conduct, and management of practice sessions and contests; analysis, demonstration, and practice of the fundamentals of individual and team play; systems of play and methods of teaching and coaching; facilities and equipment; problems of coaching, management, and public relations. One lecture, and two laboratories per week.

170. Technique of Teaching Football. I. Mr. Kelliher

171. Technique of Teaching Basketball. I. Mr. Wilton

172. Technique of Teaching Baseball. II. Mr. Harder

173. Technique of Teaching Track and Field. II. Mr. Carter

174. Technique of Teaching Tennis. I. Mr. Reynolds

†175. Technique of Teaching Swimming. I. Mr. Dearborn

176. Technique of Teaching Individual Sports. II. Mr. Kelliher

†177. Lifesaving and Water Safety. (1) II. Mr. Dearborn, Mr. Kaywood
Prerequisite: sound physical condition and ability to pass the specified preliminary swimming test.
Instruction and practice in lifesaving and water safety, including personal safety in swimming and use of small craft, elementary and special forms of rescue, swimming rescue, use of rescue equipment, resuscitation. American Red Cross Senior Certificate awarded upon successful completion of the course. One lecture, two pool periods.

†178. Technique of Boating and Sailing. (1) II. Mr. Dearborn
Prerequisite: Physical Education 58 or equivalent; those who enroll must be able swimmers capable of self-rescue.
Instruction and supervised practice in: advanced handling of sailing craft from twelve to thirty feet in length, and of several types of rowboats; theory of sailing and elements of yacht racing; introduction to canoeing, small power boats, aquaplaning and water skiing.

180–189. Varsity Intercollegiate Sports. ($\frac{1}{2}$) The Staff
Competitive sports open, by permission of the sports director, to students eligible to participate in intercollegiate athletics. Five periods per week during the training season.

180. Football. I, II.
181. Basketball. I, II.
182. Baseball. II.
183. Track. II.
184. Tennis. II.
185. Swimming. II.
186. Golf. II.
187. Fencing. II.
188. Wrestling. II.
189. Boxing. II.

† Courses open to both men and women.

199. Special Studies in Physical Education. (1–4) I, II. The Staff
Study of special problems in physical education or recreation. Open only to advanced students approved by the department chairman and the faculty members involved.

Courses in Education Department

119 (P.E.). Measurement in Physical Education. (2) I.
Mr. Lantagne, Miss Van Fossen
Development of elementary statistical procedures to be used in a testing program in physical education with emphasis on the construction, analysis, interpretation, and evaluation of the various tests available and their application. Consideration given to types and uses of tests in health instruction.

P 190. Teaching Procedures in Physical Education. (2) I, II.
Mr. Reynolds, Mr. Wilton
Prerequisite: Education 57, 110, 111, 170, and completion of proficiency test.
Methods, materials, and procedure of teaching, program planning, and organization in physical education, together with observation of teaching in classroom, gymnasium, and field.

P 192. Directed Teaching in Physical Education. (2 to 6) I, II. The Staff
Prerequisite: Education P 190.
Supervised experience in teaching physical education on the secondary school level.

Health Education

MEN AND WOMEN

Lower Division Courses

1. Personal Health Problems. (2) I, II.
Mr. Dearborn, Mr. Kaywood, Miss Whitaker
Factors influencing health, with special attention to personal health problems of heredity and reproduction, nutrition, excretion, exercise, rest recreation, mental hygiene, and the evaluation of health information. This course is especially designed for freshmen students.

2. Standard First Aid. (1) I, II. Mr. Carter
A basic course in first aid, leading to the standard certificate of the American Red Cross.

3. Family Health. (2) I, II. Mr. Kaywood, Mr. Lantagne
Application of the facts of hygiene to the family, with study of the physical, mental, and social qualifications and disqualifications for marriage; prenatal and child care; factors influencing the physical and emotional health of the family, prevention and treatment of home accidents and emergencies; daily health programs.

5. (Home Economics.) Personal and Family Health. (2) I, II. Mr. Lantagne
Principles and practices for good mental and physical health, designed especially for students in home economics. Two lectures.

48. Health Program for Elementary Schools. (2) I. Mr. Reynolds
Health information needed by the elementary classroom teacher for effective participation in the school health program, and for the protection and promotion of the physical, mental and social health of student and teachers.

Upper Division Courses

100. Organization and Administration of the School Health Program. (2) I. Mr. Dearborn
Organization, administration, and supervision of the school health program, with emphasis on the secondary school level; includes consideration of health supervision, health instruction, and hygiene of physical and mental environment of the school.

101. School Health Education. (3) II. Mr. Dearborn, Mr. Reynolds
Prerequisite: Health Education 1, 3; Home Economics 10; Biology 180, and Health Education 100 are recommended.
Objectives, principles, scope, and content of health education for elementary and secondary schools, with study and practice in the selection, use, and evaluation of teaching methods and materials.

102. Advanced First Aid. (1) I. Mr. Carter
Prerequisite: Red Cross standard first aid certificate.
Advanced course in first aid, emphasizing the competent handling of the more difficult emergencies and problems. This course leads to the Red Cross advanced certificate, and is a prerequisite to 103, Instructor's First Aid.

103. Instructor's First Aid. (1) II. Mr. Dearborn
Prerequisite: senior standing; completion or renewal of advanced certificate within preceding year; anticipation of opportunity to teach first aid.
A course in methods, required of all lay persons for teaching Red Cross courses in first aid, and especially recommended for those teaching in the fields of health, physical education, and recreation.

105. Safety Education. (2) I. Mr. Lantagne
Causes and prevention of the principal types of accidents occurring in the home, in school, in recreation, and on the streets and highways.

106. Industrial and Occupational Hygiene. (2) II. Mr. Lantagne, Mr. Wilton
Mechanical, physical, and chemical causes of accidents and ill-health in industry and selected occupations, and their prevention; study of programs of health service and environmental control in industrial organization.

107. Organization and Procedures of Student Health Service. (2) II.
Prerequisite: Health Education 100, 101. Mr. Dearborn
The organization, procedures, and practices in school health services, including consideration of the purposes, content, and technique of the health examination, and interpretation and follow-up of its findings.

199. Special Studies in Health Education. (1–3) I, II. The Staff
Study of special problems in health education. Open only to advanced students approved by the department chairman and faculty members involved.

Physical Education for Women

Lower Division Courses

26. Prescribed Physical Education for Freshmen and Sophomore Women. (½) I, II. The Staff

Classes meet twice weekly. Section assignments are made only by the department. This course may be elected for credit by juniors and seniors. Students whose physical condition indicates the need of modified activity are assigned to individual physical education classes.

Section 2. Leadership of Social Activities
†Section 3A. Archery
†Section 3B. Advanced Archery
†Section 4. Bowling
Section 5. Recreational Sports
†*Section 6A. Horseback Riding
†*Section 6B. Advanced Horseback Riding
Section 7. Fencing
Section 8. Individual Program Adaptations
Section 9A. Elementary Tennis
Section 9B. Advanced Tennis
Section 10. Body Mechanics and Relaxation
†Section 12. Elementary Social Dancing
Section 14. Creative Rythmic Activities for Children
†Section 16A. Elementary Folk Dancing
†Section 16B. Advanced Folk Dancing
†Section 17A. Elementary Dance
†Section 17B. Advanced Dance
†Section 18A. Elementary Games
†Section 18B. Lead-up Games
Section 20A. Hockey, Soccer, and Speedball
Section 20B. Basketball and Softball

28. Rhythmic Adaptation. (2) I, II. Mrs. Anderson

Prerequisite: course 26, sections 16A, 16B.

Methods of teaching rhythmic material for elementary and secondary schools. The forms discussed and practiced include folk, tap, clog and social dancing. Lecture and laboratory.

29. Camp Leadership. (1) II. Miss Van Fossen

A survey of the entire field of camping, with emphasis on activities, programs, and leadership in organized camps. (Does not fulfill activity requirement.)

30. Technique of Teaching Individual Sports. (3) II. Miss Whitaker

Prerequisite: course 26, sections 3, 5.

Sports for secondary schools and colleges; their facilities, organization, skill, teaching procedures and officiating. (Does not fulfill activity requirement.) Lecture and laboratory.

35. Rhythmic Form and Analysis. (1) I. Miss Bellinger

The fundamentals of rhythmic form. The use of rhythm as the basic element in activity, and its application to the teaching of physical education. (Does not fulfill activity requirement.) Lecture and laboratory.

Upper Division Courses

101. Kinesiology. (3) I. Mrs. Hodgins, Mr. Kelliher

Prerequisite: Biology 1A, Zoölogy 25.

The study and application of physical structure and muscular movements

† Courses open to both men and women.

* A fee is charged for use of equipment not owned by the College. Direct payment will be made by the student.

in various physical education activities. Description and application of certain anatomical concepts and physical laws to joint and muscular action. Lectures and laboratory.

102. **Theory of Individual Program Adaptation.** (3) II. Mrs. Hodgins
Prerequisite: course 101, Zoölogy 25, 40A, 40B.
Theory and practice in physical examinations; prevention and correction of orthopaedic defects; exercise as an aid to correction of functional disturbances; basic fundamentals and application of massage. Lectures and laboratory.

105. **Physiology of Exercise.** (3) I. Mr. Lantagne
Prereqisite: Physical Education 101, Zoölogy 25.
The neuromuscular mechanism and the metabolic, muscular, circulatory and respiratory responses in physical exercise, and their integration by means of the nervous system.

130. **Principles of Physical Education.** (3) I. Mr. Wilton
The nature and history of physical education; its place and contribution in the educational program and in the world of today.

131. **Administration of Physical Education.** (3) I, II. Miss Van Fossen
Problems of organization and administration of programs of health and physical education in elementary and secondary schools.

132. **Technique of Teaching Team Sports.** (3) I. Miss Hodgkins
Prerequisite: course 26, sections 20A and 20B.
A study of team sports usually found in schools and colleges with emphasis on organization, facilities, teaching procedure, and officiating. Practice in refereeing. Lectures and laboratory.

138. **Physical Education in the Elementary School.** (2) I, II. Mrs. Anderson
Prerequisite: course 26, sections 14, 16A, 18A and 18B.

139. **Activities for Early Childhood Education.** (2) II. Mrs. Anderson
Prerequisite: course 26, sections 14, 17A, 18A.
The teaching of basic rhythmic coördinations and physical education activities on the early childhood level.

140. **Community Recreation.** (3) I. Mr. Harder
Fundamentals of community recreation, its objectives, principles, program, procedure, and administration.

143. **Theory and Techniques of Recreational Activities.** (3) II.
Miss Hodgkins
The study of theory and techniques of recreational leadership, including organization and administration of programs for schools, playgrounds, and communities.

160A–160B. **Theory of Dance.** (2–2) Yr. Miss Bellinger
Prerequisite: course 26, sections 17A–17B, 35.
Modern dance techniques and teaching procedures. History of the dance and practice in techniques of composition and production. Lecture and laboratory.

165. **Techniques of Teaching Gymnastics.** (1) II. Miss Hodgkins
Marching, gymnastics and stunts. Lecture and laboratory

Related Courses in Another Department

Education 119 (P.E.). Measurement in Physical Education. (2) I, II.
Miss Van Fossen, Mr. Lantagne

Education P 190. Teaching Procedures in Physical Education. (2) I, II.
Miss Hodgkins

Education P 192. Directed Teaching in Physical Education. (2–6) I, II.
Miss Hodgkins and the Staff

PHYSICAL SCIENCES

Ernest L. Bickerdike, Ph.D., Associate Professor of Chemistry.
Leonard H. Hall, Ph.D., Instructor in Physics.
Willard L. McRary, Ph.D., Associate Professor of Chemistry.
Charles G. Miller, A.B., Lecturer in Physics.
John M. O'Gorman, Ph.D., Assistant Professor of Chemistry.
Allen E. Senear, Ph.D., Instructor in Chemistry.
Hazel W. Severy, M.A., D.Sci.O., Professor of Chemistry.
Kenneth M. Simpson, Ph.D., Assistant Professor of Physics.
Earl F. Walker, M.A., Assistant Professor of Chemistry.
Robert W. Webb, Ph.D., Associate Professor of Geology.
Hans Weltin, Ph.D., Assistant Professor of Physics.
*E. Allan Williams, Ph.D., Associate Professor of Physics.
C. Douglas Woodhouse, LL.M., Lecturer in Mineralogy.

Physical Sciences

General Requirements. Students majoring in the Department of Physical Sciences and working toward a bachelor's degree must satisfy the general requirements listed on page 52.

Scholarship. An average grade of C or better in courses required for the major must be obtained for the degree of Bachelor of Arts.

Counseling. The department chairman will assign each entering student an adviser who may be consulted on any matter pertaining to the student's college work. The adviser must approve the student's program each semester.

Requirements for the Chemistry Major

Preparation for the major:	Units
Physics 2A–2B. General Physics	8
French or German	8
Mathematics through integral calculus.	
The Major. Lower division requirements, 21 units:	
Chemistry 1A–1B. General Chemistry	10
Chemistry 5. Quantitative Analysis	3
Chemistry 12A–12B. Organic Chemistry	8
Upper division requirements, 19 units:	
Chemistry 105. Advanced Quantitative Analysis	3
Chemistry 110A–110B. Physical Chemistry	6
Chemistry 111. Physical Chemistry Laboratory	2
Chemistry 190. Scientific Literature	1
At least 7 units from the following:	
Chemistry 103. Theoretical Organic Chemistry	3
Chemistry 104. Advanced Inorganic Chemistry	3
Chemistry 108A–108B. Biochemistry	3–3
Chemistry 112. Chemical Microscopy	2
Chemistry 199. Special Problems in Chemistry	1–4

* Absent on leave, 1949–1950.

Requirements for the Physical Science Major

This curriculum is designed for students desiring a knowledge of the scope and general content of the physical sciences, and for those who plan to obtain a general secondary teaching credential upon completion of a fifth year of college work.

Preparation for the major:

Mathematics through calculus.

The Major:

	Units
Physics 1A–1B–1C–1D. General Physics	12
Chemistry 1A–1B. General Chemistry	10
Geology 5, Geology 3, Mineralogy 6, Meteorology 11, or Mathematics 9A–9B (General Astronomy)	6

Eighteen units from the following, with at least 6 units from two different fields and at least 12 units in the upper division. Students planning to obtain a teaching credential should consult the departmental chairman.

Chemistry: courses 5 and 8A–8B; any upper division courses whose prerequisites are satisfied except 101A and 199.

Physics: any upper division courses whose prerequisites are satisfied except 120 and 199.

Geology: any upper division courses whose prerequisites are satisfied.

Requirements for the Physics Major

For the major in physics the following courses are required:

	Units
Mathematics through calculus taken in the first two years.	
Chemistry 1A. General Chemistry	5
Chemistry 1B. General Chemistry	5
or	
Chemistry 110A. Physical Chemistry	3
Recommended: Mathematics 119 and either Mathematics 118 or 124.	

The Major. Lower division requirements, 12 units:

	Units
Physics 1A–1B–1D–1C. General Physics	12
or by special permission	
Physics 2A–2B. General Physics	8

Upper division requirements, 20 units:

Physics 105A. Analytical Mechanics	3
Physics 110A–110B. Electricity and Magnetism	6
Physics 111A–111B. Electrical Measurements and Electronic Circuits Laboratory	2
Physics 130. Modern Physics	3
Physics 131. Nuclear Physics	3
One additional course in one of the main subjects in physics.	

Requirements for the Minors

Physical sciences offer minors in physics, chemistry, and geology. Students electing any one of these minors must complete 18 units, 8–12 of which must be in the lower division, and 6–10 in the upper division.

Those wishing a junior high school credential and a bachelor's degree in physical science must complete 30 units in education, and one minor in a subject taught in secondary schools. Required education courses are: Education 57, 101 or 102, 110, 111, 119, 147, J 190, J 192, and J 193. For other requirements, see Department of Education.

Scholarship. Students with a major or minor in the department must maintain an average grade of C or higher in all courses offered as part of that major or minor.

Chemistry

Lower Division Courses

1A. **General Chemistry.** (5) I. Mr. McRary, Mr. Walker, Mr. Bickerdike
Prerequisite: high school chemistry or Chemistry 2A, grade B or better; high school algebra, grade B or better; or Mathematics 1A.
The principles of chemistry, with emphasis on chemical calculations. For students training for the scientific professions. Three lectures and two three-hour laboratory and quiz periods.

1B. **General Chemistry.** (5) II. Mr. McRary, Mr. Walker, Mr. Bickerdike
Prerequisite: course 1A.
Continuation of course 1A, with applications to the theory and technique of qualitative analysis; periodic systems; structure of matter. Three lectures and two three-hour laboratory and quiz periods.

2A. **Introductory Chemistry.** (3) I, II. Mr. O'Gorman, Mr. Senear
Open to all students. Fundamental principles of chemistry.
Two lectures, one discussion period, and one two-hour laboratory period.

2B. **Introductory Chemistry.** (3) II. Mr. O'Gorman, Mr. Senear
Continuation of 2A. Further principles and descriptive chemistry.
Two lectures, one discussion period, and one two-hour laboratory period.

2C. **Introductory Chemistry.** (4) I, II. Mr. Walker
For students whose major is home economics and who have received a grade of C or higher in high school chemistry. Three lectures and one three-hour laboratory period.

5. **Quantitative Analysis.** (3) I. Mr. Bickerdike, Mr. Walker
Prerequisite: courses 1A–1B.
Principles and techniques involved in fundamental volumetric and gravimetric analyses. One lecture and two three-hour laboratory periods.

8A–8B. **Organic Chemistry.** (3–3) Yr. Miss Severy
Prerequisite: courses 1A–1B, 2A–2B, or 2C.
The carbon compounds comprising the aliphatic, aromatic, and heterocyclic series; fats, carbohydrates, proteins, drugs, and dyes. Two lectures and one three-hour laboratory period. For students whose major is in a field other than chemistry.

12A–12B. **Organic Chemistry.** (4–4) Yr. Mr. Senear
Prerequisite: courses 1A–1B or 2A–2B.
The carbon compounds comprising the aliphatic, aromatic, and heterocyclic series. The laboratory work consists of the preparation and study of the properties of typical members of each series. Primarily for majors in physical and biological sciences. Three lectures and one three-hour laboratory.

Upper Division Courses

100. **Physiological Chemistry.** (3) II. Miss Severy
Prerequisite: courses 1A–1B, 2A–2B, or 2C; 8A.
Study of the chemical nature of tissues, secretions, excretions, and the chemical changes that these undergo in the functioning of the body. Two lectures and one three-hour laboratory period.

101A. **Textile Chemistry.** (2) I. Miss Severy
Prerequisite: courses 1A–1B, 2A–2B, or 2C; 8A.
Physical and chemical structures, compositions, and testing of textile fibers; testing of water, soaps, bleaches; study of dyes and dyeing. One lecture and one three-hour laboratory period.

101B. **Food Chemistry.** (2) II. Miss Severy
Prerequisite: courses 1A–1B, 2A–2B, or 2C; 8A.
Determination of the composition of food products and detection of food preservatives and adulterants; study of the pure food laws. One lecture and one three-hour laboratory period.

103. **Theoretical Organic Chemistry.** (3) I. Mr. O'Gorman, Mr. Senear
Prerequisite: course 8A–8B or 12A–12B.
The mechanisms of organic reactions, and the relationship of molecular structure to the physical and chemical properties of organic compounds. Three lectures.

104. **Advanced Inorganic Chemistry.** (3) II. Mr. Bickerdike
Prerequisite: courses 5, 105.
Selected topics in inorganic chemistry. Three lectures.

105. **Advanced Quantitative Analysis.** (3) II. Mr. Bickerdike, Mr. Walker
Prerequisite: course 5.
Continuation of course 5, but with more emphasis on theory. Analytical problems in alkalimetry, acidimetry, oxidimetry, and electrolytic deposition. One lecture and two three-hour laboratory periods.

108A–108B. **Biochemistry.** (3–3) Yr. Mr. McRary
Prerequisite: course 8A–8B or 12A–12B (may be taken concurrently).
Composition of animal and plant tissues; physicochemical activities associated with life processes. Two lectures and one three-hour laboratory period.

110A–110B. **Physical Chemistry.** (3–3) Yr. Mr. O'Gorman
Prerequisite: Chemistry 1A–1B, Physics 2A–2B, calculus.
The general principles of physical chemistry and elementary thermodynamics. Three lectures.

111. **Physical Chemistry Laboratory.** (2) II. Mr. O'Gorman
Prerequisite: Chemistry 110A–110B (may be taken concurrently).
The application of physical methods to chemical investigation. Two three-hour laboratory periods.

112. **Chemical Microscopy.** (2) I. Mr. Walker
Prerequisite: course 1A–1B.
Microscopic methods applied to chemical investigations; examinations of crystalline compounds. Two three-hour laboratory periods.

120. Laboratory Techniques in Chemistry. (1) I, II. The Staff
Prerequisite: courses 1A–1B and 8A–8B, or 12A–12B.
Elementary glass working. Construction and maintenance of apparatus.

140. Industrial Chemistry. (3) II. Mr. O'Gorman, Mr. Walker
Prerequisite: course 2A.
Production and use of fuels, lubricants, and materials of fabrication. Laboratory examination of these materials. Three lectures and demonstrations.

190. Scientific Literature. (1) I, II. The Staff
Required for majors in chemistry.

199. Special Problems in Chemistry. (1 to 4) I, II. The Staff

Geology

Lower Division Courses

2. General Geology: Physical. (3) I, II. Mr. Webb, Mr. Woodhouse
No prerequisites. Not open to students who have credit for course 5.
Origin and development of the landscape. Three lectures and occasional field trips when possible.

3. General Geology: Historical. (3) II. Mr. Webb, Mr. Woodhouse
Prerequisite: course 2 or 5.
Origin of the earth. Systematic study of earth history as interpreted from rocks and fossils; principles of evolution. Three lectures and demonstrations.

5. Physical Geology. (3) I. Mr. Webb, Mr. Woodhouse
Prerequisite: high school or college chemistry. Not open to students having credit for course 2.
Introduction to physical geology with emphasis on dynamical and structural processes. Designed primarily for students majoring in the various areas of science. Lectures, 2 hours; laboratory, 3 hours.

Upper Division Courses

108. General Economic Geology. (3) I. Mr. Woodhouse
Prerequisite: Geology 2 or 5.
Ore-forming processes, modes of occurrence, structure and types of ore bodies, both metallic and nonmetallic.

109. Geology of California. (3) II. Mr. Webb
Prerequisite: Geology 3 and consent of the instructor.
A regional study of California geology.

199. Special Problems in Geological Sciences. (1–3) I, II.
Mr. Webb, Mr. Woodhouse
Open only to properly qualified seniors who are majors in physical or biological science.

Meteorology

11. Descriptive Meteorology. (3) I. Mr. Woodhouse
Elementary survey of the fundamentals of meteorology. Three lectures.

Mineralogy

Lower Division Courses

6. Introduction to Mineralogy. (4) II. Mr. Webb, Mr. Woodhouse
Prerequisite: elementary chemistry.
Determination of common rock-forming minerals; origin, relationships, and properties; study of simple crystals, use of material in the field and processing in the laboratory. Lectures, two hours; laboratory, six hours.

33. Gems. (3) II. Mr. Woodhouse
Various synthetic gems, identification and study of all types of minerals that have value as gem material. Demonstration of cutting and polishing techniques. Collecting of material in the field. Three lectures.

Physics

Lower Division Courses

1A–1B. General Physics. (3–3) Yr. Mr. Hall, Mr. Weltin
Prerequisite: trigonometry, high school physics or chemistry. This latter requirement may be waived by permission of the instructor.
Mechanics, properties of matter, heat, and thermodynamics. 1A–1B-1C-1D are required of physics majors and those who plan to transfer to an engineering school. Two lectures and one three-hour laboratory period.

1D–1C. General Physics. (3–3) Yr. Mr. Hall
Prerequisite: course 1A–1B, analytic geometry, differential calculus; for 1C, integral calculus. It is recommended that 1D be taken before 1C.
Sound and light. Electricity and magnetism. Two lectures and one three-hour laboratory period.

2A–2B. General Physics. (4–4) Yr. Mr. Miller
Prerequisite: trigonometry completed or taken concurrently. For general students, premedical students, and science majors other than those majoring in physics or physical science.
Mechanics, properties of matter, heat, sound. Light, electricity, modern physics. Three lectures and one three-hour laboratory period.

16. Physics of Sound. (3) I, II. Mr. Bickerdike
The principles of sound and their application to music, musical instruments, and speech. Elementary principles of acoustics, public address systems. Especially designed for majors in speech and music. Two lectures and one three-hour laboratory period.

105A. Analytic Mechanics. (3) II. ———
Prerequisite: Physics 1A–1B–1C-1D, or Physics 2A–2B by permission. Mathematics through integral calculus. Recommended: differential equations.
Dynamics and statics of particles and rigid bodies.

108. Physical Optics. (3) II. Mr. Miller
Prerequisite: Physics 1A–1B–1C-1D. Differential and integral calculus.
Fundamentals of physical optics. Selected topics in microwaves and spectroscopy.

110A–110B. Electricity and Magnetism. (3–3) Yr. Mr. WELTIN
Prereqisite: Physics 1A–1B–1C–1D. Differential and integral calculus. Recommended: differential equations completed or taken concurrently. Elementary mathematical theory of electricity and magnetism. Steady and varying currents. Maxwell's equations.

111A–111B. Electrical Measurements and Electronic Circuits Laboratory. (1–1) Yr. ———
Prerequisite: course 110A–110B taken concurrently or previously.
One three-hour laboratory period per week.

112. Heat and Thermodynamics. (3) I. Mr. HALL
Prerequisite: Physics 1A–1B, or 2A–2B by permission. Mathematics through integral calculus. Recommended: differential equations or advanced calculus taken concurrently.
A thorough discussion of fundamental concepts; applications to physics, chemistry, and engineering; introduction to statistical mechanics.

120. Experimental Techniques in Physics. (1) II. Mr. MILLER, Mr. WELTIN
Prerequisite: junior standing in physics.
Selected topics in advanced physical laboratory techniques. One three-hour laboratory period per week.

130. Modern Physics. (3) I. Mr. SIMPSON
Prerequisite: course 1A–1B–1C–1D, or, in special cases, 2A–2B, and calculus.
A résumé of the theoretical and experimental knowledge of modern physics. Atomic nature of matter and electricity, radiation, photoelectric effect, spectroscopy, X rays, radioactivity and the nucleus.

131. Nuclear Physics. (3) II. ———
Prerequisite: course 130.
Detecting equipment; high energy accelerators; radioactivity, nuclear disintegration; cosmic radiation, nuclear fission.

199. Special Problems in Physics. (1 to 4) I, II. The STAFF
Open to advanced students in physics.

Physical Science

1A–1B. Fundamentals of Physical Science. (3–3) Yr. Mr. SIMPSON
Enrollment limited, entrance by permission of the instructor.
Fundamental principles and methods of physics and chemistry. Two lectures and one three-hour laboratory and discussion period.

SOCIAL SCIENCES

Henry M. Adams, Ph.D., Assistant Professor of History.
Mortimer Andron, Ph.D., Assistant Professor of Economics.
D. Mackenzie Brown, Ph.D., Professor of Political Science.
A. Russell Buchanan, Ph.D., Professor of History.
Walter E. Conrad, M.A., Instructor in Sociology.
William H. Ellison, Ph.D., Professor of History, Emeritus.
Herbert Fingarette, A.B., Lecturer in Philosophy.
Norman E. Gabel, Ph.D., Assistant Professor of Anthropology.
Harry K. Girvetz, Ph.D., Associate Professor of Sociology.
Stephen S. Goodspeed, Ph.D., Instructor in Political Science.
[2]J. Frederick Halterman, Ph.D., Professor of Economics.
William F. Kennedy, Ph.D., Assistant Professor of Economics.
Gwynne Nettler, Ph.D., Assistant Professor of Sociology.
H. Edward Nettles, Ph.D., Professor of History.
Philip W. Powell, Ph.D., Associate Professor of History.
Peter W. Topping, Ph.D., Assistant Professor of History.
Henry A. Turner, M.A., Lecturer in Political Science.
Paul D. Wienpahl, Ph.D., Assistant Professor of Philosophy.

The Majors in Subject Fields in the Social Sciences.

Majors in economics, history, philosophy, political science, social science, and sociology will be offered in 1949–1950.

Requirements for the Major.

1. Candidates for degrees with a major in a subject field in the social sciences must fulfill the requirements listed on page 52.

2. Foreign Language: At least 12 units in one foreign language, or 16 units in two foreign languages are required of majors.

The first two years of high school work in a foreign language, not duplicated by college courses taken by the student, will together be counted in satisfaction of 4 units of this requirement; the third and fourth years will be counted in satisfaction of 4 units each, but will not reduce the total number of units required for graduation. Only work of grade C or better will be counted.

Majors in economics, philosophy, sociology, and in social science may substitute for the foreign language at least 14 units of biological and physical sciences, including not less than 3 units of college courses with laboratory work. One year of chemistry or physics completed in high school, with a grade not lower than B, will each count as 3 units in satisfaction of the science requirement, but this will not reduce the total number of units required for graduation.

Requirements for the Minor. Minors are available in each of the following subject fields: history, economics, philosophy, political science, and sociology. At the beginning of the senior year, anyone minoring in these subject fields must submit to the chairman of the department a statement of the courses completed or contemplated in fulfillment of the requirements for the minor.

[2] In residence spring semester only, 1949–1950.

Lower Division. 9 units in the subject field of the minor and 3 elective units in other subject fields in the social sciences.

Upper Division. Six units in the subject field of the minor.

Prelegal Guidance. Advisers in this department will counsel students who are interested in the study of law.

Junior High School Credential with Major in a Subject Field in the Social Sciences. This credential may be obtained by completing a major in a subject field in the social sciences, and courses in education required for this credential.

Approval of Program by Adviser. Students whose major or minor is in a subject field in the social sciences must have their programs approved by an adviser in the Department of the Social Sciences.

Scholarship. Students with a major or minor in the department must maintain an average grade of not less than C in all courses offered as a part of the major or minor. Students who do not maintain such an average may be required at any time to withdraw from the major or minor.

Admission to Upper Division Courses. Except by permission of an adviser in the Department of the Social Sciences or of the instructor in the course, only students with upper division standing may enroll in upper division courses in subject fields of the social sciences.

Upper Division Standing of Majors from the University of California at Berkeley or Los Angeles. Students who transfer to the Santa Barbara campus from the College of Letters and Science of the University of California at Berkeley or at Los Angeles with the requirements completed for upper division standing in the specific majors offered here (economics, history, philosophy, political science, and sociology) will be accepted as having completed all lower division departmental requirements in those majors in this College.

Introductory Courses. Anthropology 1, 2, Anthropology 15A–15B, History 4A–4B, History 5A–5B, History 8A–8B, History 17A–17B, Philosophy 1, Philosophy 3, Political Science 1, 2 and 20, Sociology 1, 2, and 7, Economics 2, 6A–6B, 10 and 30, and Geography 1A–1B may be taken in either the freshman or the sophomore year.

Economics 1A–1B, History 88, Philosophy 6A–6B, 20A–20B, 30 and 31 are open to all students above the freshman year.

Anthropology

Lower Division Courses

1. General Anthropology. (3) I. Mr. Gabel
Physical anthropology; human biology; origin and antiquity of man; criteria of race; racial classification; racial theories and problems. Archaeology; prehistoric cultures of man. Two lectures, one quiz section per week.

2. General Anthropology. (3) II. Mr. Gabel
Nature of culture; survey of human culture types; processes of culture. Two lectures and one quiz section per week.

15A–15B. World Ethnology. (3–3) Yr. Mr. Gabel
15A. Old World ethnology; races and peoples of Africa, Eurasia, and Oceania; their habits, customs, and institutions.
15B. The American Indian; native peoples and cultures of North and South America; a survey of their political, economic, social, and religious life.

Upper Division Courses

100A. Cultural Anthropology. (3) I. Mr. Gabel
Prerequisite: Anthropology 1, 2.
Structure of primitive cultures; social, religious, political, and economic institutions among preliterate societies.

100B. Cultural Anthropology. (3) II. Mr. Gabel
Prerequisite: Anthropology 1, 2.
Theory of primitive culture; analysis and interpretation of cultural processes; cultural data applied to modern social problems.

Economics

Requirements for the economics major may be met by one of two curricula. Curriculum A is designed for students primarily interested in developing an understanding of the operation of our economy and leads to positions in government or industry as economists, to graduate study in the field of economics, and to general cultural development. Curriculum B is designed for students primarily interested in entering business as a career and focuses attention on the individual firm and its relations to the economy.

Preparation for the Major:

Curriculum A (Economics)

Required:	Units
Economics 1A–1B. Principles of Economics	3–3
Economics 2. Elementary Statistics	3
Economics 10*. Economic History	3

Curriculum B (Business)

Required:	
Economics 1A–1B. Principles of Economics	3–3
Economics 2. Elementary Statistics	3
Economics 6A–6B. Principles of Accounting	3–3
Mathematics 2. Mathematics of Finance	3

The Major:

Curriculum A (Economics)

Required: 24 upper division units, including:	
Economics 100A–100B. Economic Theory	3–3
A maximum of 6 units may be offered toward the major from the following group of courses:	
Economics 118. Commercial Law	3
Economics 123. Marketing	3
Economics 134. Corporation Finance	3

Curriculum B (Business)

Required: 24 upper division units including:	
Economics 100A. Economic Theory	3
Economics 103. Business Cycles	3
Economics 118. Commercial Law	3
Economics 123. Marketing	3
Economics 134. Corporation Finance	3
Economics 150. Labor Economics	3

* Economics 10 is not required for students who attained upper division standing prior to September 15, 1948.

Lower Division Courses

1A–1B. Principles of Economics. (3–3) Yr. Mr. Kennedy
Prerequisite: 1A is prerequisite to 1B. A sophomore course. Not open to freshmen.
The principles of economics and their application to important problems of the economic world. Two lectures, one quiz section per week.

2. Elementary Statistics. (3) I, II. Mr. Andron
Prerequisite: one and one-half years high school algebra or one year high school algebra and Mathematics 1A.
Modern methods of analyzing statistical data. Their gathering and classification with emphasis on analyses and presentation of economic and sociological material. Two lectures and one two-hour laboratory section weekly to be arranged.

6A–6B. Principles of Accounting. (3–3) Yr. Mr. Halterman
Prerequisite: 6A is prerequisite to 6B. Open to freshmen.
The principles and structure of modern accounting practice, elementary theories and problems related to the individual owner, partnership, and corporate type of business organizations. Two lectures and one two-hour laboratory section weekly to be arranged.

10. Economic History. (3) I. Mr. Halterman
Development of the modern enterprise or capitalist economy in its North Atlantic setting, with emphasis on institutions and practices.

***30. Survey of Economics.** (3) II. Mr. Halterman
Open to freshmen.
The principles and problems of economics; for students taking one semester only of economics.

Upper Division Courses

Prerequisite to all upper division courses: Economics 1A–1B or Economics 30 (formerly Economics 2) with approval of the instructor.

100A–100B. Economic Theory. (3–3) Yr. Mr. Andron, Mr. Kennedy
Prerequisite: 100A is prerequisite to 100B. Not open to students who have taken Economics 109.
Modern techniques of economic analysis. Factors that determine output, national income and employment. Principles of value and distribution under competition, imperfect competition, and monopoly.

101A–101B. History of Economic Doctrine. (3–3) Yr. The Staff
History of economic doctrine from Aristotle to the present day.

103. Business Cycles. (3) II. Mr. Kennedy
Prerequisite: Economics 2, 100A.
Theories of the business cycle and the interrelation of the economic processes; the problem of controlling economic instability. It is recommended that this course be taken in the senior year.

107. Comparative Economic Systems. (3) I. Mr. Andron
Economic principles and economic systems; socialism, fascism, and capitalism contrasted with regard to making economic decisions, organiza-

* Not to be given, 1949–1950.

tion of production, mechanism of exchange, banking and investment, distribution of income, status of labor, international trade, and public finance.

*113. **Economic and Industrial History of the United States.** (3) II. Mr. Halterman
The economic development of the United States from the period of settlement to the present time, with emphasis on conditions since 1865; origin and growth of leading industries; influence of economic conditions on political history.

116. **Industrial Organization and Public Policy.** (3) I. Mr. Kennedy
A study of government policy of maintaining competition to control economic behavior and the problems created by the growth of the modern corporation, concentration of control, and monopolistic tendencies of business.

118. **Commercial Law.** (3) II. Mr. Andron
The essentials of the law of contracts, agency, bailments, sales and negotiable instruments.

*123. **Marketing.** (3) I. ———
The principal marketing methods, institutions, and practices, with their related problems considered from the viewpoint of the consumer, the middleman, and the manufacturer.

134. **Corporation Finance.** (3) II. Mr. Halterman
Instruments and methods of financing a corporation, and the effect of these upon the corporation and its stockholders.

*135. **Money and Credit.** (3) I. Mr. Kennedy
Developments and functions of modern credit institutions and of monetary theories.

150. **Labor Economics.** (3) II. Mr. Halterman
Factors contributing to American labor problems, and the attempts on the part of those concerned to obtain harmony.

175. **Government and Business.** (3) II. Mr. Kennedy
A study of those industries in which competition has been supplanted by positive public control, together with investigation of the methods and problems of regulation and of government ownership and operation.

190. **International Trade.** (3) The Staff
Fundamental factors in international economic relations.

199. **Special Problems in Economics.** (1–3) I, II. The Staff

Geography

Lower Division Courses

1A. **Fundamentals of Modern Geography.** (3) I. Mr. Conrad
The main features of the physical environment in their relationship to man's life and activities.

1B. **Regional and Economic Geography.** (3) II. Mr. Conrad
Selected regions, with wide application of the principles of human and economic geography.

* Not to be given, 1949–1950.

History

Preparation for the Major:

Required:

	Units
History 4A–4B. History of Europe	3–3
History 17A–17B. Political and Social History of the United States	3–3

The Major:

Required: 24 units of upper division work in history. The major must include 6 units in European history and 6 units in American history, the other 12 units to be selected in consultation with the adviser.

Lower Division Courses

4A–4B. **History of Europe.** (3–3) Yr. Mr. Topping, Mr. Adams
A comprehensive survey of European civilization from ancient times to the present. Beginning each semester, 4A, Ancient and Medieval Civilizations, is prerequisite to 4B, Modern Civilization. Not open to juniors or seniors except by permission of the instructor. Two lectures, one quiz section per week.

5A–5B. **History of England.** (3–3) Yr. Mr. Nettles
The political, constitutional, economic, and cultural development of the British Isles.

8A–8B. **History of the Americas.** (3–3) Yr. Mr. Powell
The development of the Western Hemisphere from the discovery to the present. For the colonial period, attention is given to exploration and settlement, institutions, expansion and imperial rivalries. For the modern period, emphasis is on independence achievement, evolution of nationalities, and inter-American relationships.

17A–17B. **Political and Social History of the United States.** (3–3) Yr. The Staff
The evolution of American institutions and civilization. For the general student, to provide a basis for advanced study. The two semesters of this course will satisfy the requirement for American History and Institutions. Two lectures, one quiz section per week.
For ways of satisfying the requirement in American History and Institutions, see page 49.

39. **History of California and the Pacific Coast.** (3) I. Mr. Buchanan
California and the Pacific Coast, with emphasis on the Spanish-Mexican period of California history, and its relation to the Pacific Coast.

Upper Division Courses

Prerequisites to upper division courses are as follows:

History 4A–4B or equivalent is prerequisite to History 103, 111, 113A–113B, 115, 121, 130, 141, 150, 187.

History 4A–4B or 5A–5B is prerequisite to History 131.

History 5A–5B is prerequisite to Constitutional History of England, 152A–152B.

History 17A–17B or equivalent is prerequisite to History 173, 174, 175.

103. History of Europe in the Eighteenth Century. (3) I. Mr. Adams
Prerequisite: History 4A–4B, or equivalent.
A study of European civilization in the eighteenth century, with special emphasis upon institutions, ideas, and cultural forms distinguishing the century.

111. Greece and Rome. (3) I. Mr. Topping
Prerequisite: History 4A–4B, or equivalent.
The Greek world to the time of Alexander and his successors, with special attention to fifth-century Athens. Roman imperialism. Society and culture in the late Republic and early Empire.

113A–113B. History of Europe in the Nineteenth and Twentieth Centuries. (3–3) Yr. Mr. Adams
Prerequisite: History 4A–4B, or equivalent.
A study of European civilization in the nineteenth and twentieth centuries, with special emphasis on the interrelationship of the centuries and of Europe to the world. 113A is prerequisite to 113B.

115. The Byzantine Empire. (3) II. Mr. Topping
Prerequisite: History 4A–4B, or equivalent.
The later Roman Empire (330–1453 A.D.) as the bulwark of Europe against Asia, as the continuation of Greco-Roman institutions and culture, and as the educator of the Slavs. The life of Constantinople, commercial capital of the world.

121. The Development of Medieval Europe, 400 to 1300. (3) I. Mr. Topping
Prerequisite: History 4A–4B, or equivalent.
The political, economic, and cultural evolution of Europe from the fourth century. Analysis of distinctive medieval institutions: feudalism, the Holy Roman Empire, and the universal Church. Stress on the medieval background of modern problems.

130. The Renaissance. (3) II. Mr. Topping
Prerequisite: History 4A–4B, or equivalent.
Innovations in thought, action, and artistic expression in Western Europe, 1300–1500.

131. History of the British Empire. (3) I. Mr. Nettles
Prerequisite: History 4A–4B or 5A–5B.
The rise and development of the British Empire. The story of British expansion and the growth of the British Commonwealth of Nations.

***141. The Reformation.** (3) II. Mr. Topping
Prerequisite: History 4A–4B, or equivalent.
Social, religious, and intellectual changes in Europe from 1500 to 1648.

150. History of Russia. (3) II. Mr. Adams
Prerequisite: History 4A–4B, or equivalent.
A study of Russian civilization from the sixteenth century to the present, with special emphasis upon the importance of Russian history to an understanding of contemporary Russia.

* Not to be given, 1949–1950.

151. **History of the Pacific Ocean Area.** (3) II. Mr. Brown
The activities of European peoples and of the United States in the Pacific Ocean and adjacent regions. A study of the struggle for political and economic leadership in the past, together with consideration of the present situation and problems of the area.

*152A–152B. **The Constitutional History of England.** (2–2) Yr. Mr. Nettles
Prerequisite: History 5A–5B, or consent of instructor.
An historical study of the governmental system of Great Britain. An examination of medieval institutions, a survey of the development of Parliament, and the growth of constitutional liberties and the cabinet system of government through the nineteenth century.

161A–161B. **Hispanic-American History.** (3–3) Yr. Mr. Powell
For the colonial period (to about 1810), emphasis is given to Spanish and Portuguese backgrounds, exploration and conquest, and institutional development. This is followed by treatment of independence achievement, international relationships, struggle toward national political stability, and cultural developments.

*166. **History of Mexico.** (3) I. Mr. Powell
Development from pre-Columbian times to the present. Emphasis upon the blending of European and native cultures to form a Mexican nation. Detailed treatment of the Mexican Revolution since 1911, and relations with the United States. Admission by permission of the instructor.

173. **Civil War and Reconstruction.** (3) I. Mr. Buchanan
Prerequisite: History 17A–17B, or equivalent.
History of the United States from 1850 to 1877. Ordinarily restricted to seniors majoring in the social sciences. Emphasis is on the use of the William Wyles Library.

174. **Recent History of the United States.** (3) I. Mr. Buchanan
Prerequisite: History 17A–17B, or equivalent.
Political, economic, and social development of the United States from 1900 to the present time.

175. **History of the Foreign Relations of the United States.** (3) II.
Prerequisite: History 17A–17B, or equivalent. Mr. Buchanan
The diplomatic history of the United States, with emphasis on contemporary problems.

*183. **Economic Development of Latin America.** (3) II. Mr. Powell
Colonial period: development of natural resources, inter-colonial trade, commerce with Europe. The modern period: stress on economic bases of national growth, trade with Europe and the United States, and economic rivalries of world powers for Latin-American resources and markets. Admission by permission of the instructor.

*186. **History of California: the American Period.** (3) II. Mr. Buchanan

187. **History of the Modern Near East.** (3) II. Mr. Nettles
Prerequisite: History 4A–4B, or equivalent.
Historical background of the Near East; decline and dissolution of the Ottoman Empire, the rise of national states, and the rivalry of the great powers.

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* Not to be given, 1949–1950.

*190. **Historical Method and Historiography.** (1–3) II. Mr. Adams
An introduction to the methods and practices of historical research and writing. A study of selected problems, of great historians, and of the place of history in society and culture. Open to history majors in their junior or senior year.

Philosophy

Preparation for the Major:

Required:

12 units of lower division courses in philosophy, including:

	Units
Philosophy 20A–20B. History of Philosophy	3–3
Philosophy 31. Deductive Logic	3

(must be taken either as preparation for the major or in the upper division)

The Major:

Required: 24 units in upper division philosophy courses, 6 of which may be in related courses in other departments or subject fields in the social sciences department with the approval of the departmental adviser. At the beginning of the senior year, the student must submit for approval to the department a statement of the courses which he expects to offer in fulfillment of the major requirements for graduation.

At the present time, the courses in other subject fields available and acceptable for 6 units of the philosophy major are as follows:

English 143. Interrelations of Literature and Philosophy	3
Sociology 162A–162B. Modern Reform Movements	3–3

Lower Division Courses

1. Short Introduction to Philosophy. (3) I, II. The Staff
An examination, primarily for students not likely to continue in philosophy, of the leading philosophical ideas in terms of which western civilization has sought to understand itself and the world of which it is a part. Course 1 is not open for credit to students who have completed course 6A.

3. Logic in Practice. (3) I, II. Mr. Wienpahl
Language and its analysis as an instrument of sound thinking in morals, politics and everyday life. This course is open to all students, and fulfills the general philosophy requirement.

6A–6B. Introduction to Philosophy. (3–3) Yr. The Staff
This course introduces the student to the central problems and types of philosophy in their relation to science and society.
Course 6A is prerequisite to 6B and is not open for credit to students who have completed course 1. Course 6A is acceptable as fulfilling the general philosophy requirement. Students are urged to defer taking course 6A–6B until their sophomore year.

20A–20B. History of Philosophy. (3–3) Yr. Mr. Wienpahl
I. From the Pre-Socratics to Plotinus.
II. Scholasticism, humanism, and the rise of modern science; continental rationalism (Descartes, Spinoza, Leibniz); British empiricism (Locke, Berkeley, Hume); Kant and nineteenth-century German idealism.

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* Not to be given, 1949–1950.

30. **Inductive Logic.** (3) I. Mr. Wienpahl
The use of logic in science and practical life; fallacies; theory of indirect evidence; construction of scientific hypotheses; probability and statistical methods.

31. **Deductive Logic.** (3) II. Mr. Wienpahl
The elements of formal logic; Aristotle's logic; modern symbolic logic. The forms of reasoning and the structure of language.

Upper Division Courses

104. **Ethics.** (3) I. Mr. Girvetz, Mr. Fingarette
The history and development of ethical theory; an analysis of the nature of ethical choice and deliberation.

108. **Social Philosophy.** (3) II. Mr. Fingarette
An analysis of the basic concepts and methods of the social sciences and of the relationship of the social to the biological and physical sciences. Basic problems of human personality and values in relation to their social matrix.

*135. **Contemporary Philosophy.** (3) II. Mr. Wienpahl
Prerequisite: Philosophy 20B.
Positivism, materialism, and philosophies of science in the nineteenth and twentieth centuries, with special reference to logical positivism, pragmatism, and scientific empiricism.

*136. **Aesthetics.** (3) II. Mr. Fingarette
Prerequisite: consent of the instructor.
Relation of the philosophy of art to the artist's activities, to aesthetic experience and to the criticism of art. The principal theories of the nature of art, of aesthetic contemplation; and of beauty, sublimity, and other categories of aesthetic value. Nature and validity of the standards of criticism.

162. **Continental Rationalism.** (3) II. Mr. Wienpahl
Prerequisite: Philosophy 20B.
The philosophies of Descartes, Spinoza, and Leibniz.

163. **British Empiricism.** (3) I. Mr. Fingarette
Prerequisite: Philosophy 20B.
The philosophies of Locke, Berkeley, and Hume.

199A–199B. **Special Study for Advanced Undergraduates.** (2–3) I, II.
Admission by special arrangement. The Staff

Political Science

Preparation for the Major:

Required:

	Units
Political Science 1. Introduction to Political Science	3
Political Science 2. Political Institutions	3
History 4A–4B. History of Europe	3–3
or	
History 17A–17B. Political and Social History of the United States	3–3

* Not to be given, 1949–1950.

The Major:

Required: 24 units of upper division work in the major, 18 units of which must be taken in political science. Six units may be included from history or other courses approved by the department.

Lower Division Courses

1. **Introduction to Political Science.** (3) I. Mr. Brown
The forces and principles which operate in the field of government and law. Two lectures, one quiz section per week.

2. **Political Institutions.** (3) II. Mr. Brown
Contemporary foreign governments, with particular attention to Britain, France, and Russia. Two lectures, one quiz section per week.

20. **Survey of American Government.** (3) I, II. Mr. Goodspeed, Mr. Turner
A broad study of federal, state, and local government in the United States. This course is designed to fulfill in part the American Institutions requirement.
For ways of satisfying the requirement in American History and Institutions, see page 49.

Upper Division Courses

*113. **American Political Thought.** (2) II. Mr. Brown
A study of the works of selected American political thinkers from Madison and Jefferson to the present.

121. **International Relations.** (3) I. Mr. Goodspeed
The nation-state system and the forces which operate in world politics.

124. **International Organization.** (2) II. Mr. Goodspeed
The development of the idea of international organization. The establishment of the League of Nations; formation and problems of the United Nations and other agencies of international coöperation.

129. **The Foreign Policies of the Great Powers.** (3) II. Mr. Goodspeed
A study of the basic factors that underlie the foreign policies of the great powers.

136. **Political Development of the Far East.** (3) I. Mr. Brown
The political and social development of the peoples of the Orient from the earliest times, with emphasis upon China, India, and Japan.

138. **International Relations of the Far East.** (3) II. Mr. Brown
Far Eastern international politics, with emphasis upon American foreign policy in that area.

148A–148B. **Governments of Latin America.** (3–3) Yr. Mr. Goodspeed
The government and politics of the Latin-American states. 148A emphasizes the ABC powers and Peru; 148B stresses the Caribbean area and Mexico, together with special attention to the growth of Pan-Americanism.

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* Not to be given, 1949–1950.

152. Political Parties and Politics. (2) I. Mr. Turner
The organization, activities, and functions of political parties and pressure groups in the United States.

157. American Constitutional Law. (3) I. Mr. Turner
A study of the principles of the federal constitution as developed through judicial interpretation and usage, including federal-state relations, restrictions on the federal government, and the status of individual rights.

*158. **Administrative Regulations.** (3) II. Mr. Turner
The administration, the law, and the politics of business regulation through administrative agencies.

162. Municipal Government and Administration. (3) I. Mr. Turner
Governmental problems of urban communities and the development of modern techniques for their solution.

172. State Government and Administration. (3) II. Mr. Turner
The structure of state and county government, with particular reference to current administrative problems.

181. Principles of Public Administration. (3) II. Mr. Turner
The growth of organization and procedures required in handling the increasingly complex administration of governmental powers and services.

189A–189B. Political Theory. (2–2) Yr. Mr. Brown
Theories of political control and the relationship of men and the state.

190. Bibliography and Research Methods in Political Science. (1–3) I, II. Mr. Brown
The sources from which the data of political science are drawn and the limitations of various methods of interpretation.

Social Science

Preparation for the Major:

Required:

	Units
History 4A–4B. History of Europe	3–3
Sociology 1. Introductory Sociology	3
Sociology 2. Social Institutions	3
or	
Anthropology 1, 2. General Anthropology	3–3
Economics 1A–1B. Principles of Economics	3–3
or	
Political Science 1. Introduction to Political Science	3
Political Science 2. Political Institutions	3

or their equivalent.

The Major:

Required: 27 units upper division work including 15 units in the subject field of emphasis in the social sciences, and 6 units in each of two other subject fields of the social sciences.

* Not to be given, 1949–1950.

Sociology

Preparation for the Major:

Required: 6 units of lower division sociology to be chosen from:

	Units
Sociology 1. Introductory Sociology	3
Sociology 2. Social Institutions	3
Sociology 7. Social Disorganization	3
Anthropology 1, 2. General Anthropology	3–3
Economics 2. Elementary Statistics	3
or Psychology 107. Statistical Techniques	3

6 units to be chosen from:

Economics 1A–1B. Principles of Economics	3–3
Political Science 1. Introduction to Political Science	3
Political Science 2. Political Institutions	3
History 4A–4B. History of Europe	3–3

The Major:

Required: 24 units of upper division work; 18 units in sociology plus 6 in anthropology to be divided among the following courses:

Sociology 120. Marriage and the Family	3
Sociology 130. Social Change	3
Sociology 162A–162B. Modern Reform Movements	3–3
Sociology 153. Public Opinion and Social Attitudes	3
or Sociology 166. Group Behavior	3
Sociology 185. Population	3
or Sociology 189. Minority Group Relations	3
Anthropology 100A–100B. Cultural Anthropology	3–3

Lower Division Courses

1. Introductory Sociology. (3) I, II. Mr. Nettler
Introduction to the field of sociology. Sociological principles in their application to contemporary American culture. Two lectures and one quiz section per week.

2. Social Institutions. (3) I, II. Mr. Girvetz
The nature and processes of social institutions with emphasis upon economic, political, familial, and other institutions.

7. Social Disorganization. (3) II. Mr. Nettler
Prerequisite: Sociology 1.
A study of the causative factors and the control of "disorganized" behaviors such as divorce, suicide, delinquency, prostitution, and unemployment.

Upper Division Courses

Prerequisite to upper division courses in sociology: upper division standing and Sociology 1, or 2, or the equivalent.

120. Marriage and the Family. (3) I, II. Mr. Conrad
The economic, social, and psychological aspects of family life, past and present. Two lectures, one quiz section per week.

*121. **Principles and Practice of Probation.** (3) I. ———
Probation and the juvenile court, and their relation to schools and other agencies. Methods of diagnosis and treatment of delinquency.

130. **Social Change.** (3) II. Mr. Nettler
A study of theories of social change and the meaning of progress; an analysis of the factors involved, and their relevance to contemporary trends.

135. **Principles of Social Welfare.** (3) II. Mr. Conrad
The principles and methods of modern social work. Problems of both case work and group work will be studied. The course will be of especial value for those students expecting to continue further study in the field at some other institution.

153. **Public Opinion and Social Attitudes.** (3) I. Mr. Nettler
Prerequisite: Sociology 1, Psychology 1A, or consent of instructor.
The measurement of attitude and opinion; the determination of attitude; opinion change, propaganda, and the media of opinion formation.

162A–162B. **Modern Reform Movements.** (3–3) Yr. Mr. Girvetz
An historical and comparative survey of utopianism, socialism, communism, classical and contemporary liberalism, and other systems of reform and reconstruction.

166. **Group Behavior.** (3) I. Mr. Nettler
Prerequisite: Sociology 1 and Psychology 1A or consent of instructor.
The meaning of group membership; group effects and leadership possibilities; an analysis of the structure and function of representative group-types; political and religious group behavior.

185. **Population.** (3) I. Mr. Conrad
A study of the causes and consequences of population movement, distribution, composition, and growth.

*189. **Minority Group Relations.** (3) II. Mr. Conrad
Problems of race and minority groups in the United States.

* Not to be given, 1949–1950.

SPEECH

ROBERT L. CLARK, M.F.A., Lecturer in Speech.
THEODORE W. HATLEN, M.A., Assistant Professor of Speech.
EVELYN P. KENESSON, Ph.D., Assistant Professor of Speech.
WILLIAM R. MORGAN, M.F.A., Lecturer in Speech.
UPTON S. PALMER, M.A., Lecturer in Speech.
[1]JOHN C. SNIDECOR, Ph.D., Professor of Speech.

The Department of Speech offers an academic (nonteaching) major in speech with general areas of emphasis in dramatic and radio production, remedial speech and forensics.

Recommendations are made to the State Department of Education for two types of speech credentials:

(1) The special secondary credential in speech arts, entitling the holder to teach public speaking and dramatics in the public schools. (2) The speech credential in the correction of speech defects, entitling the holder to offer corrective work in speech in the public schools, must be combined with one of the following: (a) general elementary credential, (b) general junior high credential, (c) early childhood education credential, (d) special secondary credential in speech arts. The credential in the correction of speech defects requires the completion of 132 units, or an additional semester beyond the requirements for the general credential. Students applying for the correction credential need not be speech majors.

Preparation for the Major in Speech. (1) Students should have passed Subject A (either examination or course) before taking Speech 11. By special arrangement students may take Subject A and Speech 11 concurrently. (2) English 1A and 1B may be taken concurrently with lower division work in speech. (3) Majors are expected to demonstrate, prior to the junior year, reasonable facility in the presentation of oral materials before various types of audiences.

Requirements for the Major in Speech. 1. Students must present, by the first half of the junior year, a program to be examined and approved by the chairman of the department. The program may be amended from time to time after consultation with the chairman.

2. The program must include 39 units in speech, 18 units of which must be upper division courses.

3. The following are required courses for the major in speech:

	Units
Speech 11. Fundamentals of Speech	3
Speech 31. Public Speaking	3
or	
Speech 58. Argumentation and Public Discussion	3
Speech 42. Oral Reading	3
Speech 45. Orientation to the Theater	3
Speech 46. Voice and Articulation Improvement	3
or	
Speech 136. Introduction to Remedial Speech	3
Speech 50. Phonetics	3
Speech 172. Speech Correction	3
Speech 199A or 199B. Problems in Speech	3

[1] In residence fall semester only, 1949–1950.

The remaining 15 units required for the major should be selected after conferences with faculty advisers.

Courses in Education required for a credential in each of the above groups are: Education 57, 110, 111, 147, 170, Education Sp. 190, and Education Sp. 192A. In addition, Education Sp. 192B and Psychology 148 or 168 are required for the credential in speech correction.

Courses in English. Students who are primarily interested in dramatic and radio production are expected to elect English 117E or J and English 114A and/or 114B.

Allied Courses. For courses recommended in the allied fields of music, art, industrial arts, and science, students should consult their speech adviser.

Demonstration of Knowledge and Skills. Major students must maintain an average grade of C or higher in upper division speech courses. After the completion of Speech 199A or 199B, students must pass a written or an oral examination based upon a review of their work in speech. During the same semester they must publicly demonstrate skill in speech performance.

Requirements for the Minor in Speech. A minor in speech consists of 18 units: 9 lower division (of which 3 must be in Speech 11), and 9 upper division. The remaining units are selected by the student subject to the approval of his speech adviser.

Lower Division Courses

11. Fundamentals of Speech. (3) I, II. The Staff
Prerequisite to all speech courses except with the permission of the instructor.
Orientation in the field of speech. Emphasis on improving speech skills through participation in public speaking, oral reading, and discussion. Attention to individual needs. See Speech 46.

21. Discussion and Problem Solving. (3) I, II. The Staff
Prerequisite: Speech 11, English 1A or 1B.
Group expression and problem solving through discussion. Presentation of discussions related to significant social, literary, artistic, philosophical and scientific movements and concepts contributing to our cultural heritage. Primarily for those not majoring in speech.

30. Fundamentals of Acting. (3) II. Mr. Hatlen
Development of the actor's basic skills of voice and body through the use of readings, lectures, exercises, and projects. Includes a study of stage techniques and psychological aspects of characterization.

31. Public Speaking. (3) I. Mr. Palmer
Practice in preparing various types of speeches with attention to content, the organization of speech material, and oral presentation.

40. Radio Broadcasting. (3) I. Mr. Morgan
The principles and techniques of radio broadcasting. Emphasis will be placed on radio speech, microphone technique, and various types of radio presentations. Students will participate in regularly scheduled class productions working from professional and student-written scripts.

42. Oral Reading. (3) II. Mr. Morgan
Designed for those who wish to increase their ability to interpret from the printed page. A study of the different types of literature and the various techniques of oral interpretation.

45. **Orientation in the Theater.** (3) I. Mr. Hatlen
Designed to acquaint the student with the general nature of dramatic presentation, including elements of dramatic structure, types of drama, and the contributions of the actor, director, designer, technician, and audience.

46. **Voice and Articulation Improvement.** (3) II. Mr. Snidecor
The bases of correct sound formation, and standards for the use of voice and pronunciation. Practical training on an individual basis is emphasized. Open to students who have not had Speech 11 and who have the consent of the instructor.

50. **Phonetics.** (3) I. Mr. Snidecor
Systematic and scientific consideration of physiological, linguistic, cultural, and historical factors of American pronunciation. Introduction to the International Phonetic Alphabet.

52. **Debate.** (3) II. Miss Kenesson
Intensive drill in debate techniques. Class members will participate in intercollegiate forensic activities.

58. **Argumentation and Public Discussion.** (3) I. Miss Kenesson
Introduction to forms of argument, analysis, evidence, and speech organization. Participation in discussion projects.

70. **Stagecraft.** (3) I. Mr. Clark
Study of the physical theater and of the design, construction, painting, and lighting of stage settings. Practical experience afforded in set construction and backstage duties in connection with college dramatic productions.

Upper Division Courses

130. **History of Rhetoric and Public Address.** (3) II. Mr. Palmer
A study of the basic constituents of rhetoric as presented by Plato and Aristotle, Cicero, Quintilian, Bacon, Blair, Campbell, Whately and modern rhetoricians; evaluation of the great speeches of history in the light of rhetorical theory.

131. **Advanced Public Speaking.** (3) II. Mr. Palmer
Special attention to audience analysis and consideration of persuasion techniques as applied to platform speaking.

136. **Introduction to Remedial Speech.** (3) I. Mr. Palmer
Elementary speech retraining with emphasis on the more basic problems encountered in the classroom.

140. **Radio Broadcasting.** (3) II. Mr. Morgan
Prerequisite: Speech 40 or equivalent radio experience.
Advanced production of regularly scheduled programs over local radio stations. Work will include participation in the various types of radio programs.

142. **Advanced Oral Reading.** (3) I. Mr. Morgan
Prerequisite: Speech 42 recommended.
Advanced theory and practice or oral interpretation using representative types of prose and poetry including contemporary plays. Emphasis is placed on well-developed individual projects.

152. **Playwriting.** (3) I. Mr. Hatlen
A consideration of dramatic technique and structure, leading to the composition of original plays.

157. **Contemporary Drama.** (3) II. Mr. Hatlen
A study of Ibsen and subsequent dramatists—English, Continental, American.

159A–159B. **Participation in Theatrical Productions.** (3–3) I, II. The Staff
Students are assigned projects in acting, stagecraft, directing, and other phases of production contributing to a program of play readings, workshop plays, and major productions.

160. **Development of the Theater.** (3) I. Mr. Hatlen
A survey of the theater from early Greek origins to the present time. Emphasis is placed upon the nature of the physical playhouse, modes of acting and staging, and the contributions of important figures.

172. **Speech Correction.** (3) I. Mr. Snidecor
The elementary neuromuscular and psychological bases of speech. Nature, causes, and remedial procedures for correcting phonatory, articulatory, and psychological speech disorders. Should be taken prior to Speech 177.

177. **Methods in Speech Correction.** (3) II. Mr. Snidecor
Diagnostic and remedial techniques as these are applied at the school and clinical level; observation and practical work with a variety of speech and hearing problems.

199A–199B. **Problems in Speech (Speech Correction, Forensics, Radio, Dramatic Production).** (3–3) I, II. The Staff
Investigation of special problems in the field of speech with faculty supervision. Oral examination of special projects and general backgrounds in speech. Demonstration of skill.

The following courses in the Department of Education are specifically related to the Department of Speech: Education Sp. 190; Sp. 192A; and Sp. 192B. For descriptions of these courses, see the Department of Education.

The Speech Clinic

Adjacent to the speech classrooms and offices is maintained a Speech Laboratory which houses recording machines, motion picture cameras, and testing devices to implement instruction. The staff sets up weekly conference hours in the laboratory for the assistance of individuals in all the speech classes, particularly for the projects described under Speech 11, Speech 31, Education Sp. 190, and for assistance in correction of speech deviations in any student of the College.

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